

THE MAKING OF EGYPT

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PREFACE

THE purpose of this work is to present a view of the many elements which were successively united in the people of Egypt, and which produced its epochs of greatness. The view of each element, its source, and its arrival either by invasion of people or of fashion or abilities, is mainly a matter of anthropological history, especially in the facial types. The history of the civilisation is the expression of that.

Beginning at the close of the Stone Age, each section of the changes that can be observed is dealt with in chapters, each followed by its group of half a dozen plates, with a view to the distinctive character of each period.

The family details of the kings are left aside, as already dealt with (*Student's Hist. Egypt*, 3 vols.). The course of history has been thoroughly discussed in *Ancient Egypt*, 1931, pp. 1-20. Suffice to say here that every historical datum is fully harmonized in the present view. The epitome from Manetho is followed as a thread, for, as Dr. Borchardt says, "Manetho had really good sources, and his copyists have not altogether spoilt him." With all the material now before us, there is no excuse for those who ignore it and blindly follow some writer of the last generation.

The illustrations here given are mostly from my own discoveries and those of the British School of Egyptian Archaeology. All of the sources are stated in pp. 180-182. Besides single figures acknowledged severally in the list, I am indebted to the Trustees of the British Museum for two illustrations, to Ayrton's *Mahasna* for twenty, Brunton's *Mostagedda* for two, Berlin Museum for five, Department of Antiquities, Cairo, for eight, and to Randall-MacIver for six.

P R E F A C E

The selection of the objects, thirteen hundred or more, here issued from a vastly greater quantity of known material, but does not include examples of solely artistic or historical value. Such have been largely published already in albums and other popular volumes. Here the objects showing each new advance are put forward, but not the subsequent repetitions.

The development of Egypt is the longest and most informative of the panoramas of the past of man, and therefore the most fitting for general study.

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CHAPTER I

THE FORMATION OF EGYPT

1. *Elevation of Land.*—The underlying history of the land of Egypt may be briefly outlined. A plateau of Eocene limestone had a river drainage which ran down the Bahr-bela-ma, or waterless river, on the western side of the Natron Lakes.

The uplift of the eastern mountains made a great fold or fault, and the drainage naturally fell into that, forming the Nile.

Heavy rainfall existed, and the stream cut a deep channel along the fold. This called up basaltic outflows, as at the west of Oxyrhynchos and the Fayum, and on the east side of the Delta at Khankah, thirteen miles north of Cairo.

Drainage of the plateau penetrated joints, and dissolved large caverns of discharge at least 200 feet below present Nile, as the cliffs have sunk that much in parts.

2. *Rise of the Ocean.*—The changes of sea level, which occur alike all along the Mediterranean, formed an estuary up the valley to beyond Thebes. This filled up the whole valley with debris to the level of the plateau, leaving gravels on the top of present cliffs.

Decrease of the ocean caused the rainfall to plough out a channel through the debris. This is well seen in the western valleys of Thebes.

3. *Entry of Man.*—As the denudation proceeded, palaeolithic man came in. He left his tools when the Nile was 100 feet above the present level. Acheulian man came in with the Nile at 50 feet and Mousterian man with the Nile at 20 feet above the present.

The oldest vestiges of man yet found in Egypt are pieces of mineralised blackened bone, discovered in our work at Qau in Upper Egypt (Petrie, *Antaeopolis*, p. 1, and Sandford, *Palaeolithic Man*, iii, 85-86). These earliest remains were collected anciently, with those of many animals indiscriminately, and with ten times as many bones of the hippopotamus, in honour of the local god. Separate hippo bones were

wrapped in linen, and placed in tombs of the Xth dynasty. Two large groups of bones were found in pits of the XIXth dynasty. They had all come from Sebilian strata of late Mousterian age, which have since been covered in this region by Nile deposit. The human bones are most like "the predynastic Egyptian" (Keith); the back half of a skull is wide and full in form, and a jaw (fem.) is as finely formed and delicate as those of the Vth dynasty. The quality of man in Egypt seems to have been unaltered for at least 10,000 years.

In the absence of writing, our estimate of the mind of a people must look to material remains. These are exemplified in (1) the skill in workmanship, (2) taste in forms, (3) signs, emblems, (4) grave offerings, (5) attention to gods and to the dead, (6) games, (7) later traditions.

The Stone Ages have been usually undervalued, because there is hardly anything left except flint implements. Chellean man, however, held in high estimation the beauty of his flint work; the fine symmetrical form produced by the fewest of blows was evidently an esteemed quality. Moreover, he considered excellence of appearance to be of paramount importance. The best handle for a pick or *hache* is the natural round butt, which cannot cut the hand but has a rough surface giving a firm grip; yet this utility was sacrificed in order to secure the beauty of good flaking over the whole tool. This is folly from the point of view of usefulness, and it shows us the power of aesthetic feeling in the Chellean age.

CHAPTER II

FROM STONE AGE TO BADARIAN AGE

4. *The Fayum Solutrean*, 9000 B.C.—The first contact with the continuous civilisation of Egypt is in the Fayum basin. There an agricultural people lived who used an abundance of flint implements (pl. I). They stored their grain in pits lined with straw rope bound together; they reaped with straight sickles inlaid with a line of saw-flints in the wood. Their forms of flint work are marked F in pl. I, where they are compared with similar forms marked S, which belong to the Solutrean style in Europe. The connection of forms is surprisingly close, but the Fayum work is an inferior branch of the same style and has not acquired some of the details which were developed in Europe; it is naturally worn down by the long trek of the people from the north. The home of Solutrean culture is credited to Hungary and somewhere north-west of the Black Sea, whence the style was carried across Europe as far as Spain. Another branch would travel eastward to reach Egypt, like many later migrations from the Caucasus region. Such a trek might be through Colchis, where an Egyptian resemblance of customs was so strong that Herodotus says, "The Colchians were evidently Egyptians" (bk. ii, 104-5). We must, then, regard the Fayum civilisation as derived from this northern migration, which also penetrated North Africa.

5. *The Tasian Age*.—The next civilisation was much advanced (pl. II). It is named Tasian from Deir Tasa, opposite to Abutiq (Brunton, *Badarian Civilisation and Mostagedda*; A.S., xxxiv, 194). The burials and various fragments known of this age, though from different sites, are closely alike, and entirely different from all that went before or after. The characteristic objects are the beakers with flaring brims (II, 2, 3, 6). The form has been compared with Spanish pottery, and hence a North African source has been suspected; on the other hand, vases closely similar to Tasian are found in German neolithic

sites, Aichbühl and Schussenrieder, also at Bodman on Lake Constance (3). The burly bowl II, 9, is another type peculiar to this age, as also the upright forms with incised bands, 7, 8.

The stone axes 3A, 3B are known rarely in Egypt and are dated now by being found in village sites of Tasian age (*Mostagedda*, xiii). Some are of igneous rock, but most are of hard white limestone. Others have been bought in Egypt (see *Prehistoric Egypt*, xxvii, 1-18). The flint II, 4 is well flaked, and of a type not known elsewhere. The palettes for face-paint begin to appear, but in alabaster or limestone, of squared form. The very few skull measurements are not published, but the drawings show a larger and finer skull than the Badarian, like the square-faced Bronze Age man of Europe. It is most desirable to learn more about these highly advanced people, whose affinities are not yet recognised.

6. *The Badarian Age*, 7500 B.C.—The next civilisation is known best at Badari, twenty miles south of Asyut on the east bank (see *Badarian Civilisation*). As the pottery of this age is found beneath that of the Amratian and later ages, the succession is unquestionable. Accordingly the Badarian is here subdivided as S.D. 21-29, preceding Amratian, S.D. 30. The flint arrowheads are closely like those of the Fayum flints, 180 miles to the north (II, 14-17). The sites are on spurs of debris washed down from the limestone cliffs, but the bulk of the habitations of this age must now be far below the Nile mud accumulations, for on these slopes of cliff debris there were only the cemeteries and the poorer dwellings.

The pottery is the distinctive product. Some of it is the most perfect handwork that is known, for its regularity and thinness. Mere clay was not good enough a material, and basalt was ground to a fine powder and so made an artificial basis (III, 20-22). The surface of many bowls has been combed over, leaving it closely ribbed; this combing was done diagonally, alternately crossed, the most perfect way to produce regularity. The baking was mostly mouth down, so that the ash covered the brim and deoxidized it, leaving it black.

The changes that can be traced are the following:

FROM STONE AGE TO BADARIAN AGE

<i>S.D.</i>	<i>Fine Faced.</i>	<i>Rough Ware.</i>	<i>Total of Graves.</i>
21	Finest combing and polish, III, nos. 20, 22. Body, dark brown.	Finger pitted. Streaked and polished brown.	6
22	Poorer combing. Cylinders, no. 28. Body dark brown and black.	Thick conic cups, red facing.	10
23	Less combing. Conic, no. 24. Body dark and light brown.	Pebble polished, hemispheric.	3
24	No combing. Bright polish. Thinnest, no. 21. Shallow bowls, no. 23. Body, brown and red brown.	Red flaring bowl. Red facing.	16
25	Thicker, less polish. Brown.	Red dish.	5
26	Last conic bowl.		1
27	Burnished patterns. Red haematite face. Red carinated bowls, red body, 27-30.	Coarse forms.	6
28	Brown, vertical polish.	Flat-based bowl. Rough cup.	7
29	Black top, thick jar, no. 28.	Very rough upright pans, 34.	3

The increase of redness marks the substitution of kiln firing, in place of smothering the pot in ashes.

The carinated bowls, III, nos. 29, 30, give a link forward to the early Amratian period (no. 31, as in X, Red Polished, 7, 7D). The store pans of rough ware are of plain forms (III, 32-35). The most surprising advance of the Badarians was in glazing. A favourite ornament was a belt formed of a hank of threads with thousands of stone beads covered with green copper glaze.

7. *Palettes and Ivory.*—The palettes for grinding the malachite eye-paint were standardised as long slips of slate, with more or less of a notch at each end (III, 36-38). Ivory was used for combs (II, 11, 13), a strange screw rod (10), and for spoons (III, 35A and IV, 43); bone amulets (IV, 44-5) are more rarely found. Shell was used for fish hooks (IV, 41). A boomerang (IV, 42) is of very thin wood, with a curious dislocation in the planes of it, which would affect the flight. Weaving was well advanced, with selvedge and very evenly spaced.

8. *Human Figures*.—The most important remains are the small carved figures of women. The steatopygous clay figure (IV, 40) has incisions on the back, which doubtless represent the painting of patterns on the body. It belongs to the class of seated figures (IV, 39) well known later, in the Amratian period, which bore similar patterns painted on them (VIII, 55). Steatopygous figures have been attributed as slave figures of aboriginal negroid race.

Next, shown in IV, 46, is an ivory statuette of a heavy forbidding type rather like the sphinx from Tell Halaf (*T.H.*, xxxiv B). The latest, S.D. 29, is a red pottery figure (IV, 47) of an advanced and energetic type.

With these figures before us, the whole question of the various races is raised. We have seen that there are evidences of a change of population derived from different countries—the Fayum flint-users, the Tasian beaker people, the Badarians.

9. *The Under-dog People*.—The presence of an “under-dog” people, an overridden minority, is very evident at different periods. The finest ripple-flaked flint knives are in the same grave, side by side with long typical Magdalenian flakes. These might seem centuries apart in age, but they witness instead to two contemporaneous civilisations. In the highest age of art—the IVth dynasty—there are similarly in the tombs little cuboid seals (XLIX, 16-23) incised with rough animal figures which resemble the rock carvings of the Libyan desert.

10. *Evidence of Skulls*.—Before proceeding to other cultures, we will here review the evidence to be reached from the skulls.

In skull measurements it is quite illogical to take an average from very mixed material; we need to search over the measurements in order to distinguish any separate groups that can be perceived. The Badarian skull measures are thus set out here (V), and the gap between a major and minor group is shaded over to mark it clearly. All of the principal dimensions show a minor group apart. In the main dimensions it is the smaller, but in the basi-alveolar, basi-nasal, and nasi-alveolar measures it is the larger. That is to say, the lower part of the face protruded, in the minor group, the upper lip was longer, and the minor people were distinctly inferior in type.

The following of this research in the later ages is shown in the

diagram (Appendix II), the results of which we shall use in discussing the later history.

The full discussion of the Badarian skulls (*Biometrika*, xix, 125) results in their being classed as unlike the Abyssinian and Sardinian, which are the nearest in form to the Egyptian, also distinct from European, but most like the primitive Indian. "It would be difficult to choose between the primitive Indian and the Egyptian series as the group to which the Badarians are closer." Thus the early Indian, but not the still earlier Dravidian nor later Hindu, is the relative of the Badarian, which in turn was an element of the subsequent Egyptian type. It is to Asia, and not to Africa or Europe, that we should look for the source of the Badarian people.

11. *Corn-growing Caucasus*.—We must now turn to a different class of evidence. The use of corn by the Badarians, in the form of Emmer wheat, *Triticum dicoccum*, points to the recognition of the corn god Osiris, who brought the Egyptians out of savagery. The Osiris myth of the god in the tree is even now strong in the Caucasus, where a great tree in a cathedral is said to contain a spirit. The capital of Osiris was Akret, and the Greek name of the capital of the Caucasus was Ekretike (*Ancient Egypt*, 1926, 41). This is a central point in the identification of twenty other place names in the Egyptian spells of the Book of the Dead with various places in the Caucasus (pl. V).

If the mythology of Egypt and the Osiris myth are thus based on the Caucasus, we must recognise that this land was the source of the Badarian people. Such source would well accord with some of them also migrating to India, after the primitive Dravidian and before the historic Hindu.

That the Badarian age was a long period is shown by there being a thick bed of rock debris cemented together in the middle of the deposits, which seem indistinguishable in style above and below the interval; many centuries appear to be involved in such conditions.

The Badarian mind is seen in the exquisitely worked pottery, the thinnest and most regular that is known. No marks are found, except a palm branch scratched by the potter. The graves were plain holes for the partly contracted body, not systematized beyond the usual direction of head to south, face to east. Skins were more

frequent than woven cloth as a covering. Around the body there was sometimes a great mass of threaded beads of green glazed stone. The offering bowls were usually in front or above the head, and one hand near the mouth. Ivory spoons, thick and generally square, were placed for food. Malachite served as eye-paint, and slate palettes for grinding it. Provision was made not only for sustenance, but for health and for ornament.

The beliefs of these people may be indicated by the figures, one of carved ivory and the other modelled in pottery (46, 47); but whether these represent the deceased, or a servant and a goddess, we cannot say. Of later tradition, there is the reclamation from cannibalism by Osiris, the god of corn. It belongs to this stage, when grain was cultivated, and is an indication of the Caucasus connection.

12. *Sequence Dating*.—Before entering on the main part of the Neolithic remains, the method of the relative dating of them should be stated (*Diospolis Parva*, 4-8). The succession of forms, obviously derived one from another, covers most of the ground. Before that, the proportion of relationship of any tomb group to the secured part of the series shows how near it is to the beginning. After a preliminary scantling of the subject, one thousand graves were selected with at least five forms of pottery in each. A card slip was used for each grave, with the contents specified, and then every occurrence of a type was examined, to see whether it could be brought nearer to the other examples.

A long process of comparison resulted in bringing the thousand graves into the best connected order, which was probably the original order. Dividing the series into fifty parts, these were numbered as Sequence Date (S.D.) 30 to 80, leaving space for earlier and later discoveries. The use of this scale, from the S.D. of each type, to ascertain the S.D. of a grave, works out, in every instance, with concordant results.

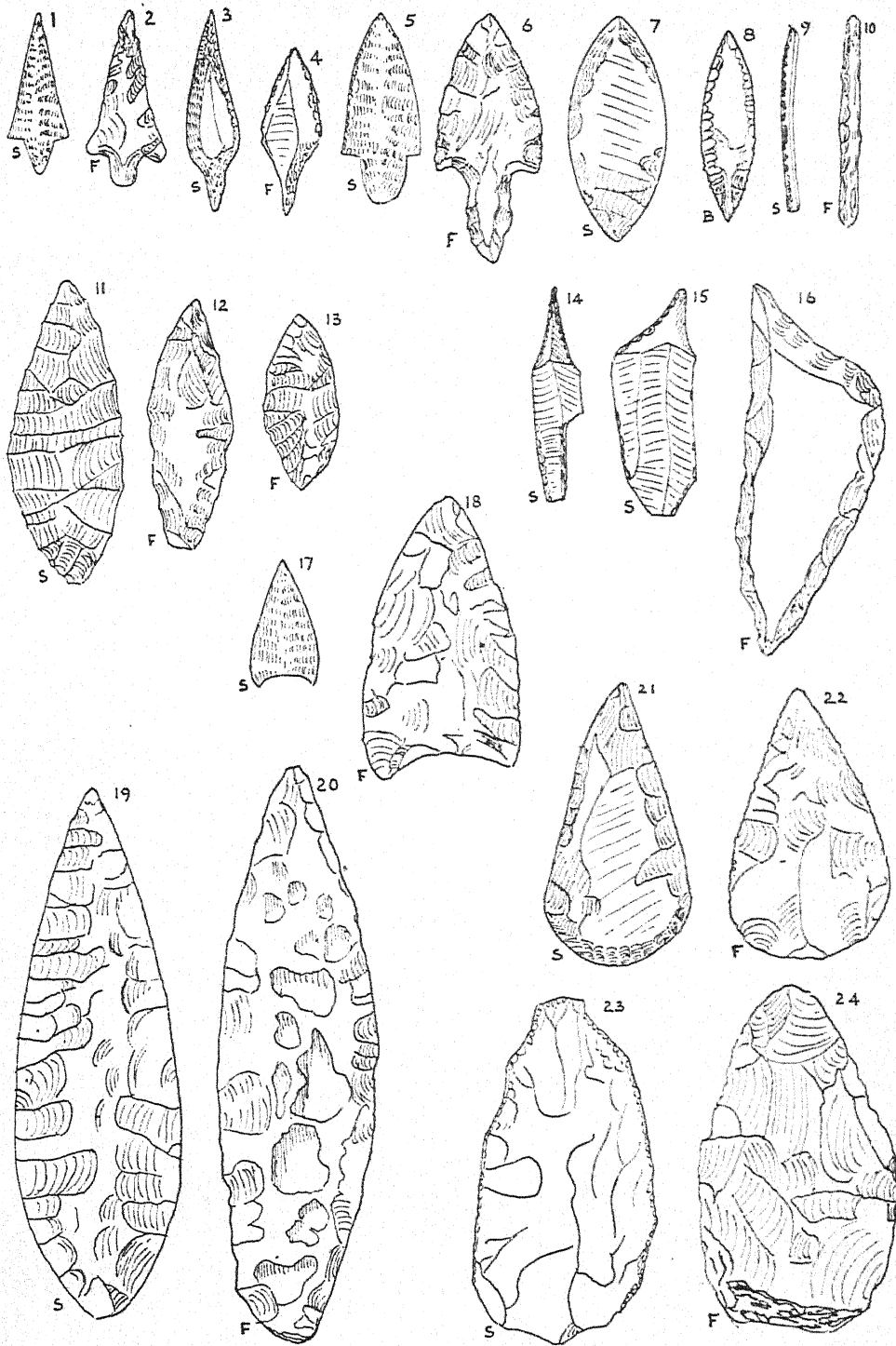
13. *Summary of Periods*.—In the foregoing summary the ground has been cleared for dealing with the flourishing ages of the predynastic civilisations. In understanding the evidences of change in a country we must bear in mind the various stages of the results of change, and try to discriminate the detail.

In changes of population there may be a general substitution (as by Hulagu) ; or the killing of men and scattering of women (Melos) ; killing of men and capturing women (Troy) ; enslaving of men and taking women (Belgium, 1914) ; victors ruling helots (Sparta) ; victors ruling over a stable population (Turks) ; mixture of diverse peoples (Copts and Arabs) ; assimilation of immigrants (England, Flemings and, later, Huguenots) ; or there may be merely an adoption of foreign ideas (England, some from Persia and Japan).

THE SERIES OF CIVILISATIONS IN EGYPT.							B.C.
Fayum, Solutrean stock	..	..	..	..	..	..	9000 (?)
	S.D.						
Tasian	20						
Badarian	21-29	..	..	..	..	..	7471
Amratian	{ 30-34 white-lined 34-37 red and black						
Gerzean	{ 38-44 early 45-60 late	..	..	..	..	..	5500 (?)
Semamean	61-78	..	..	..	..	..	4800
Ist dynasty	78-82	..	..	..	..	..	4326-4078
IIInd "	..	..	..	..	..	..	4078-3838
IIIrd "	..	..	..	..	..	..	3838-3747
IVth "	..	..	..	..	..	..	3747-3510

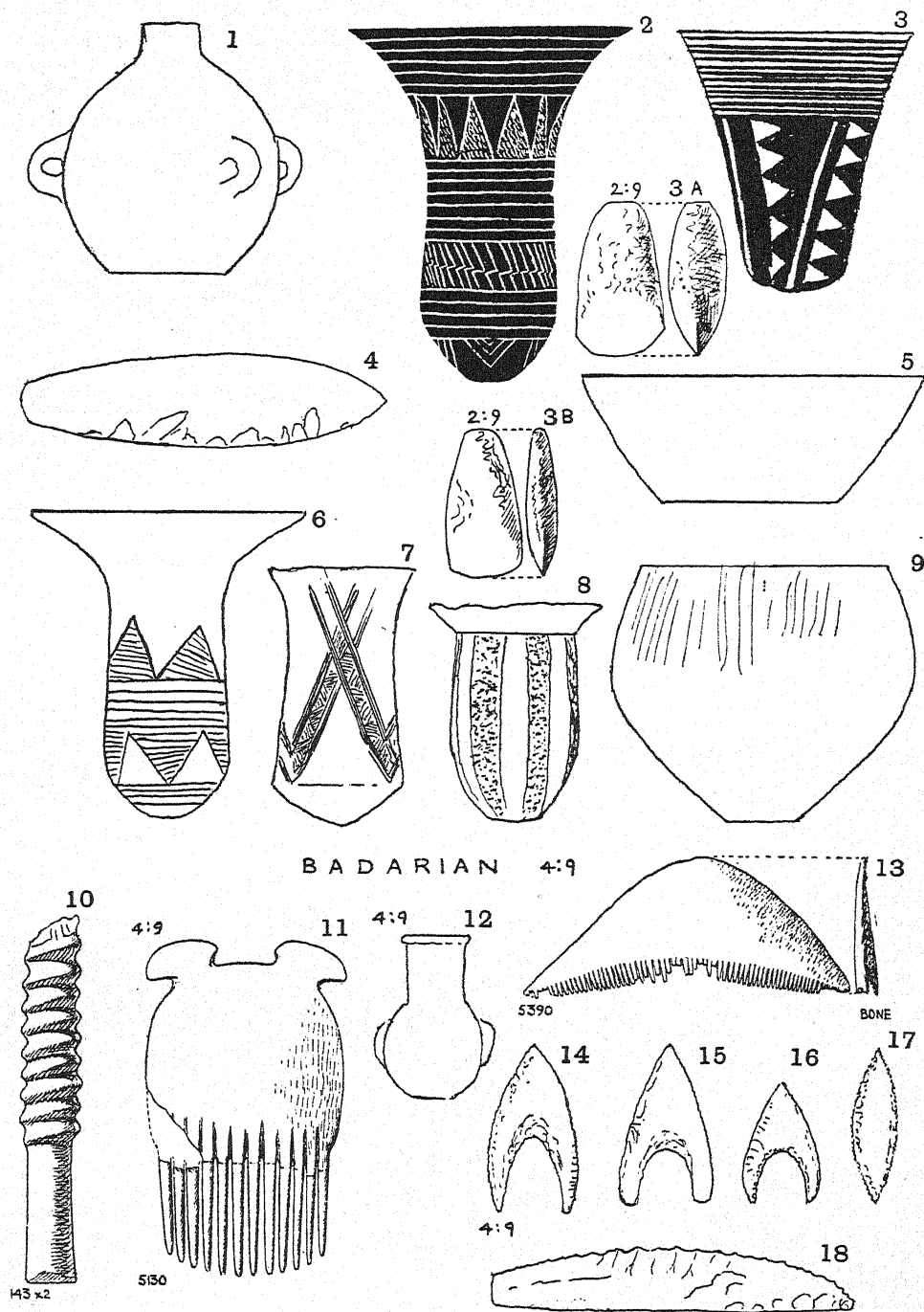
The general scale before the dynasties is determined by European prehistoric dating (see sect. 28), and the precise dates are derived by calendar events which probably correspond. The year 7471 B.C. is the date when the count of months would start at 1 Epiphi or Abib, the beginning of the year to both Egyptians and Semites. The year 4800 B.C. is the date when the signs of the three seasons accorded with the agricultural seasons. The dynastic dates are those fixed by Egyptian history (*Anc. Eg.*, 1931, 1).

PLATE I



FLINTWORK: SOLUTREAN (S) AND FAYUM (F). (SCALE 3 : 5.)

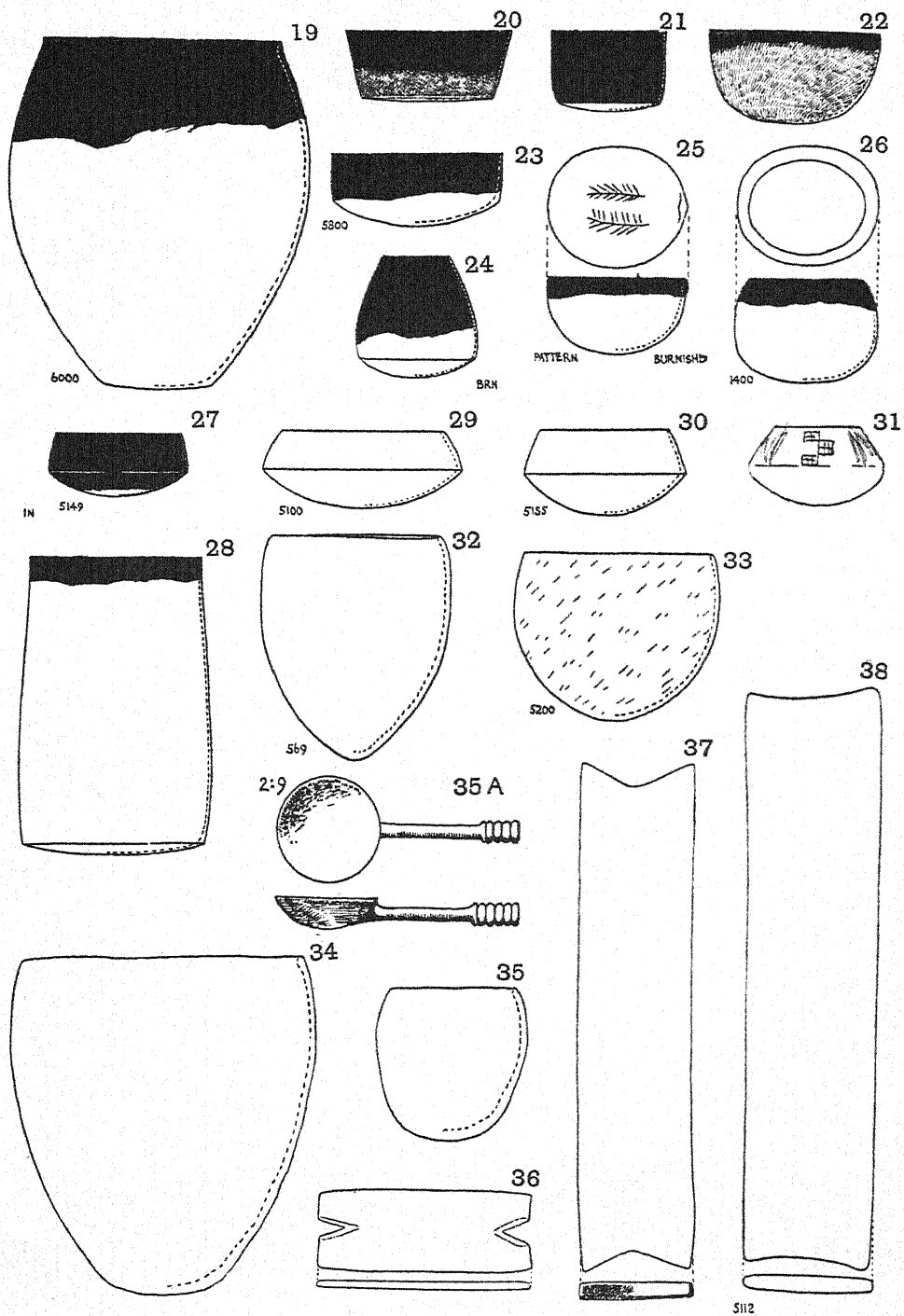
PLATE II



BADARIAN 4:9

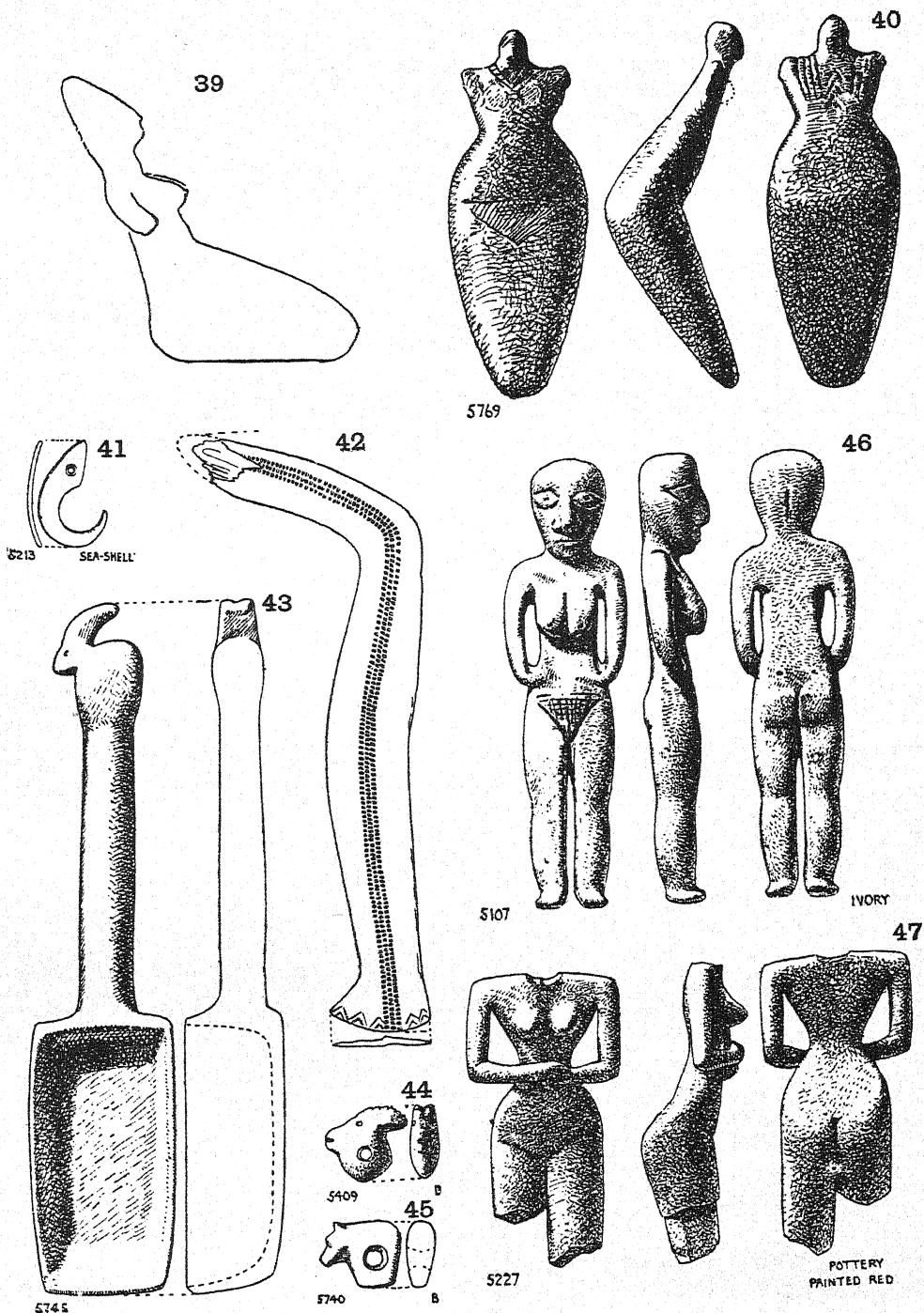
TASIAN, 1-9; BADARIAN, 10-18. (SCALE 2:9.)

PLATE III



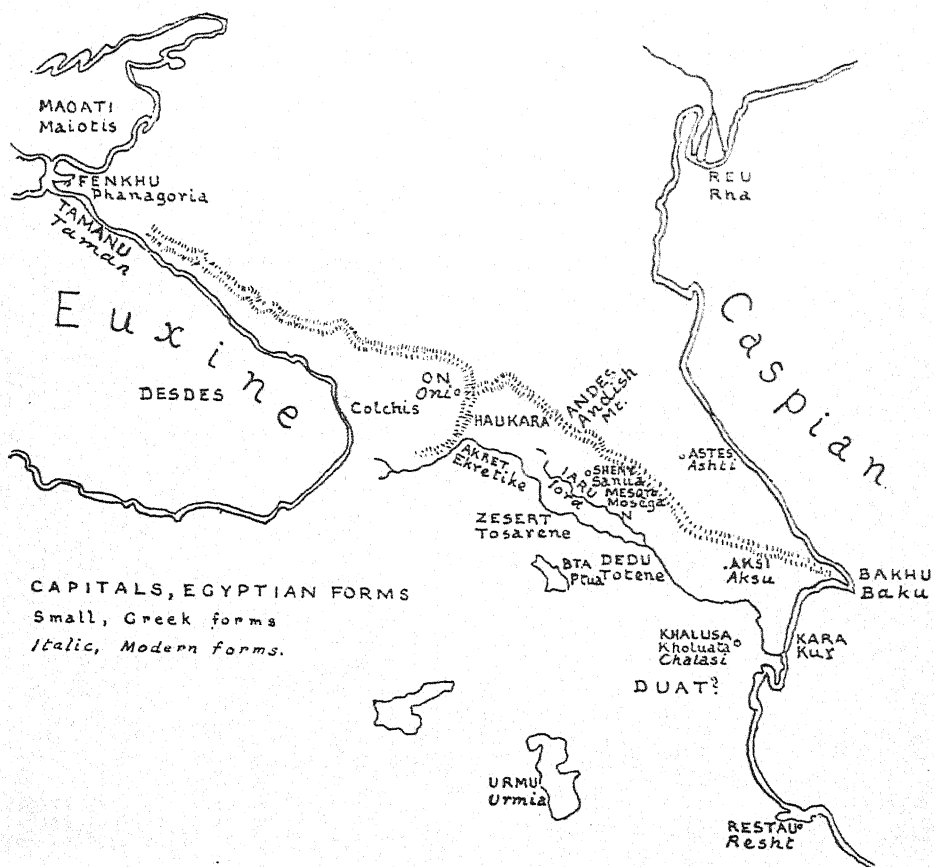
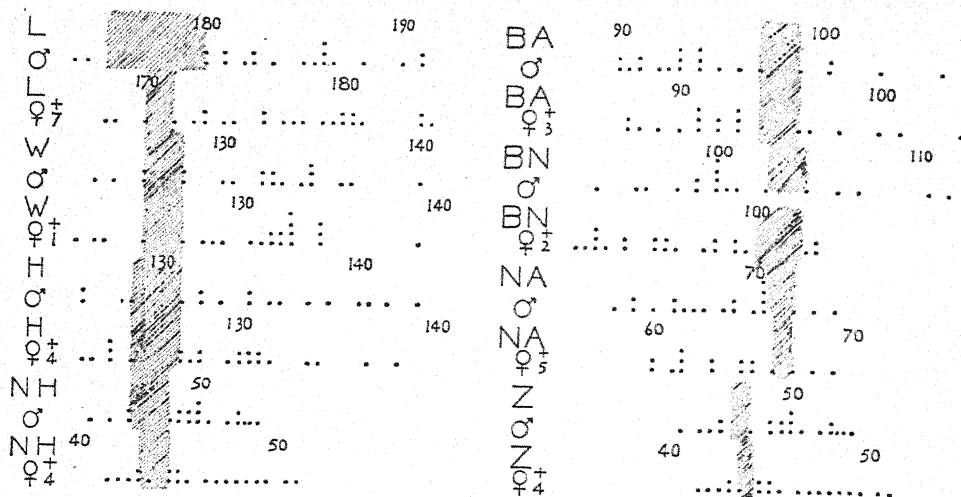
BADARIAN: POTTERY AND SLATE PALETTES. (SCALE 1 : 9.)

PLATE IV



BADARIAN: FIGURES, SPOON, BOOMERANG. (SCALE 4 : 9.)

PLATE V



BADARIAN: SKULL MEASUREMENTS. CAUCASUS MAP.

CHAPTER III

EARLY AMRATIAN AGE, 6500 B.C.

14. *White-lined Pottery*, S.D. 31-34.—Though the forms of eighty varieties of plain pottery start before S.D. 34, yet these earlier stages are separated from the later by their mixture with the frequent use of white-line painting on red. Ten varieties start in S.D. 30, but no white lines. Apparently the Badarian had diminished; a rough people came in with little pottery and nothing else, S.D. 30. They were followed by a Libyan invasion with white-line pottery, which lasted from S.D. 31 to S.D. 34, and the fashion of white lines disappeared, though the pottery forms continued. Named from El Amrah.

S.D. 30.—Graves, shallow round holes. Body wrapped in a hide; one instance of a copper pin. Two rhomboid slate palettes. Pottery, only a single cup, but of the subsequent Amratian style.

S.D. 31-34.—With white-lined pottery (pls. VI-X). The first motive of decoration was the imitation of the plaiting of basket-work, and the elaboration of the geometrical patterns, VI, 1; VII, 10-16. These were developed as chevron patterns in the carinated bowls (14-16), which carried forward the form of Badarian bowls (III, 27-30). Plants were admired for their grace, as shown on VI, 2, 3, 7; a dozen different plants can be distinguished. These remove the notion that figures were executed for their magic values, for these plants in their variety are obviously chosen for decoration, as those on Cretan vases. Another very interesting step in the delineation of form is the figure of a boat, painted inside an oval dish, VI, 4. It is given in plan and shows two cabins (see XXVII), the oars around the hull, the branch in the bows, the steersman sitting in the stern, and even the ripple of the water. This is the oldest plan known. No. 5 has figures of the moufflon, and a long-necked figure with a head which can only be the giraffe (known in Northern Egypt, 1400 B.C.). No. 6 shows a long-haired man in successful combat with a taller man; the suggestion of motion of the legs by a zigzag line between

them is an interesting convention. So far as we know, this is the earliest representation of fighting.

No. 7 has two short-legged hornless quadrupeds suggesting a chevron ; a stork is shown below. No. 8 has four hippopotami and four fishes. No. 9 shows bovine figures, but type uncertain. Nos. 17, 18, in pl. VII, have figures of the ibex and moufflon. This class of figured vase gives the first view of artistic taste and interest and they show, as in the plants, an appreciation of beauty. The taste for red pottery with white-line patterns still continues in the high lands of Algeria to-day.

15. *Eye-paint, Palettes, Marks.*—The Badarian use of green malachite as an eye-paint was continued. It is an excellent germicide, and Africans still use it on ulcers. Spread around the eyes, it is the best protection from flies. In the earliest mummy, and in the statues and reliefs of the IVth dynasty, the faces are sometimes widely coloured green. Slate palettes are common from S.D. 31 to 78; the earliest are long and rhombic in shape, as VII, 19, 23. Animal figures are Amratian, the hippopotamus, hartebeest (?) and turtle, nos. 20-22. A smooth round pebble was used for crushing and grinding the malachite on these palettes.

Various ownership marks were put upon pottery, nos. 25-52. Other animal paintings on vases are in VIII, 53, 54.

16. *Steatopygous Type.*—Rude models of aboriginal women are of steatopygous type, like the figure VIII, 55. The painted patterns upon this suggest tatuings, as similar incised markings are on the Badarian figure, IV, 40. These figures are obviously of an inferior race, but as they appear during a considerable period, and they are of women only, the presumption is that they were the victims of slave raids from a neighbouring region, and not a permanent population in Egypt. Other steatopygous figures are of early age in Malta and Somaliland (Punt), and the type survives in the present day in South Africa.

17. *Beardless Type.*—The beardless figures, VIII, 59 and XI, 1-14, are of S.D. 31-34; there are also bearded figures (Gerzean) of S.D. 38 and on XI, 15-22 (*P.E.* 7). No. 56, the bird is on a short flat hair-pin; no. 57, the animal on the comb is most like the okapi, by the slope of its hindquarters and width of ear. The tusk, no. 58, is a charm which is commonly found between S.D. 33 and 44, and often

with a bearded head, pl. XI, 15, 16, 22. Pl. VIII, no. 60, large flint arrowhead modelled in clay. No. 61, notched slate, being a spool for netting, like the Badarian example, III, 36. Nos. 62-67, cylindrical limestone vases typical of the early Amratian; nos. 68, 69, round-based basalt vases, found from S.D. 31 to 36, rarely to S.D. 51 (see pl. XII). These are very distinct from the vases of all other periods.

18. *Magic Tusks, Combs*.—In ivory, the largest objects are the tusks (IX, 70), which in the later Amratian or early Gerzean periods are carved with human heads. Sometimes they are in pairs, one solid and another hollowed; this suggests the modern witchcraft in Africa of charming a man's soul into a tusk so that it can be carried away. In one box I found together the pair of horns and three of the small slate objects (82), evidently a witch doctor's outfit. Ivory hairpins with a little bird carved on the top (71) are frequent; also with crossing lines (72) or plain (73). The combs commonly have animal figures on them, though they are sometimes plain (74-77).

19. *Flint Work*.—The flint work is very skilful; the thickness of the knife (79) is given in section below; and, thin as it is, the surface is reduced by scaling all over, and a saw edge put on by pressure-chipping; the teeth are $\frac{1}{30}$ to $\frac{1}{40}$ inch. These long straight knives belong to the whole of the Amratian age, S.D. 32-43, lasting into the Gerzean. Similar work is done on the forked lancehead, no. 78, which was set in a shaft for throwing, and controlled by a length of leather cord to prevent it from flying too far and getting broken.

20. *Sandals and Wigs*.—A remarkable offering was a model pair of sandals, no. 80, coloured red except along the strap lines; these prove sandals to have been worn at this early age. Another evidence of habit is the bald-headed figure (XV, 6) which had a loose wig of black clay hair over it, proving that shaving the head was usual by S.D. 38. This is before we see any evidence of clothing.

21. *Magic Figures*.—The charm or *dollas* was used for augury (82; XII, 32; XV, 1-4). Four of them were tied together by a string and cast on the ground to see how they would lie. This resembles the modern African method of divination. The little bird, no. 83, was to be worn as a charm; it is of fine green glaze on a base of sand. No. 86 shows finger rings of ivory. No. 87 is the tip of a horn, pierced

with holes for stitching. This and nos. 88, 89 were all for plugging the leg-holes of gazelle water-skins; remains of leather are preserved on the neck of some of these horns. No. 90 is a painted limestone copy of a hard stone disc mace. These were weapons of beautiful porphyry, and highly finished; they were only in use in the Amratian age. The small size of the hole shows that they must have had for a handle a strip of dried hippo hide, as any more brittle material would have snapped.

22. *Weights, Amulets*.—Weights begin to appear in this age, the earliest standard being what was afterwards known as the *beqa*. They were cut in limestone and treasured in the graves (X, 94-6). One cylinder with dome ends occurred in a burial, wrapped in leather and placed between the hands. The standard varies between 190 and 211 grains, which is that used for gold in historic times, and it ranged from Egypt to India, being found as far as Mohenjo-daro.

Amulets were made of shell, ivory, and bone. Beads were cut in quartz, carnelian, and garnet, besides the softer steatite and calcite. Glazing was kept up from the Badarian age, and coated on frit body (IX, 83) instead of on stone. Clothing is indicated by a fringe (as worn in Nubia now) painted on bodies of women and outlined on pottery bowls (84, 85); there seems no garment as yet for men, only the sheath as on VIII, 59 and XI, 6.

23. *Pottery*. Pl. X.—The forms are all new except the Red Polished bowls of carinate form, 7, 7D, which continued from the later Badarian, III, 29-31. The cylindric jars (III, 28) did not continue, as all the Amratian taper to the base (X, 22-27). One survival from early times is the ceremonial continuance of the swallow-tail arrowhead (IX, 78) by a clay model in a tomb. There is no trace of the Badarian combing on pottery; all the pots are hand-made, and many show the impress of finger marks inside on the clay. The types B, 1-79 are in Black-topped ware; P, 2-79 follow in plain Red Polished. At the bottom (X, 92-3) are two small examples of Decorated, the red line pattern on buff, and copied from the rushwork covers of hard stone vases, which did not seriously drive out the older pottery till S.D. 40. These early examples show that the later people (Gerzean) were already in contact with the Nile valley by S.D. 31, apparently in the Red Sea mountains where the hard stone vases were wrought.

CHAPTER IV

LATE AMRATIAN AGE, 5800 B.C.

24. *Beardless and Bearded.*—We now reach the second stage of the Amratian age, ranging from S.D. 34 to 37. The white-lined pottery was no longer in fashion, but was superseded by other styles. This change seems to mark the close of the colonising from the Libyan side, and the beginning of the independent culture of Egypt. There are two classes of figures among the ivories rendered on pl. XI which serve to mark this distinction. The upper group shows a beardless man (6) wearing the sheath (broken away). This type is associated with the white-lined pottery (VI and VII). In the burials of these people, the skulls are 176-181 mm. long, 122-4 mm. wide. The bearded type of the lower group is dated to S.D. 38 and on to 42 (XV, 1-4). The skull is larger, being 184-187 mm. long and 130-4 mm. wide. Besides the tusks with heads there are plain ones (IX, 70) dated from S.D. 33-44. The bearded type is therefore the early Gerzean, the face is long and the nose narrow and straight.

25. *Royal Signs, Pottery.* XII-XIV, S.D. 34-37.—The later Amratian age drew largely in style from the early Amratian. The basalt vases were more bulbous, the slate palettes were less varied. The signs were developed (XIII); the most important, 60, is *deshert*, the red crown of Lower Egypt, in relief, on a jar of S.D. 35-39. It shows us that the original was a head-dress, high at the back, like the Venetian doge's cap, with an ostrich feather stuck in it. In historic times the Egyptian had lost all idea of the origin, and even in the 1st dynasty it was already conventionalised. No. 62, the falcon on the enclosure, is the earliest example of the *serekh*, or frame of the *ka* name of the king. The emblems of the later rule were already established even before the use of clothing became general.

XIII. The bow (65), red and painted with white lines, is certainly predynastic, and the white line decoration would link it perhaps with

the previous period of S.D. 31-33. A box of red pottery of S.D. 35-41 has painted on it figures of a papyrus boat over a crocodile, and of a hippopotamus (XIII, 66, 67).

XIV. The pottery of this age carried on the earlier types, and there were added some new forms—the large oval dish, F 15 D; the double pot, F 43b; the globular vessel on an open-work stand, no. 68; the square bottle, F 62a; the serpent relief, F 66. The Eastern people supplied a copy of a stone vase with marbled lines (69), probably also the painting in chequer squares (70). The model boat (71) is copied from a papyrus form with built-up sides of papyrus bundles lashed vertically. The black bowl with incised lines, 72, is foreign, and much of this ware is found later, pls. XX, XXVI. Nos. 69, 70 are tokens of the Gerzean neighbours, like X, 92-3.

The Amratian age was inferior to the Badarian in the higher achievements, but more varied in outlook. The pottery was partly an inheritance from late Badarian, and was fairly good. It shows a love of artistic forms, exemplified in a dozen different plants for decoration. Animals and men are drawn with spirit. The first plan appears, showing detail of a ship. A variety of signs, cut on pottery, begins a new view of mind; the animal forms are characteristic though rough.

The graves are abundant and well provided. A regular system of placing the offerings implies a fixed ritual, and the variety of size and richness of tombs shows a variety of rank.

The ivory figures are fairly natural in form; all the men have shaved heads, and wear the sheath in front—otherwise there is no clothing—and a fringe is shown on the women. It seems strange to us that sandals and wigs precede the use of garments. The small ivory statuettes, however, probably portray the actual appearance of the Amratians, and to attribute any magical or religious meaning to their figures would be mere guesswork.

Flint working was very skilful. A knife 14 ins. long was reduced to $\frac{1}{4}$ in. in thickness by the uniform scaling off of surface flakes; the cutting edge was then finely chipped until the workman attained a minute saw-edge of thirty teeth to the inch.

In women's hairdressing the hair was carefully put up, held by long-toothed ivory combs, carved with animal figures.

The usual crown of Lower Egypt was already used.

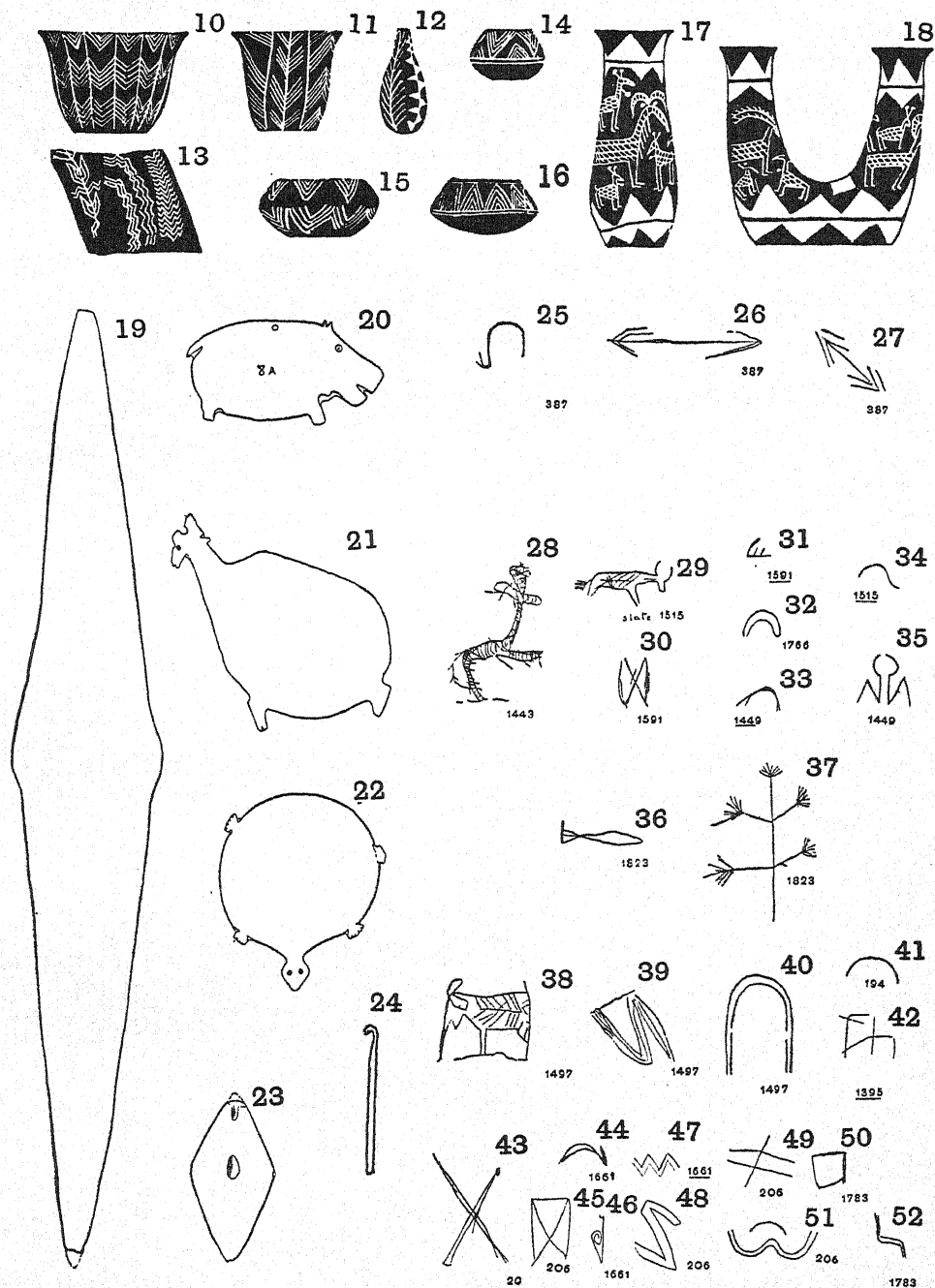
26. *Other Views.*—Before proceeding with the transition to the Gerzean style of S.D. 40, we should perhaps notice a long discussion by Dr. Alex. Scharff (*J.E.A.*, xiv, 261). The upshot of it is that the Amratian civilisation is from Libya, but he would limit it to south of Qau. We find, however, that the S.D. types are continuous northward to the Fayum (Gerzeh) and, beyond that, there are no such settlements by which to judge this view. Nor was Qau the southern limit of the Gerzean, for it is also found freely at Diospolis, far south of Qau. Thus though the region of Lower Egypt has the more Gerzean, that was only a local shift from south to north of the relative importance of the civilisation, and was not a limiting of styles. An overlap of white-line style and Gerzean is claimed, adducing as evidence a red vase with white paint (*Brit. Mus.*) which bears the Gerzean type of ship. This white paint, however, looks like a modern fake on an old vase as, although not abraded, the paint is dropping off in flakes; also the aloe in pot is certainly abnormal in the great lengthening of it. Another claim is made that there was no fresh civilisation at S.D. 63. Yet at that point are the figures of combats of black and red men on the Hierakonpolis tomb, and the naval battle of two kinds of ships and fight of two races on land, on the knife handle from Gebel el Araq. I do not see sufficient grounds, therefore, in this theory, to modify the conclusions.

PLATE VI



AMRATIAN: WHITE-LINE POTTERY, S.D. 31-32. (SCALE 2 : 9.)

PLATE VII



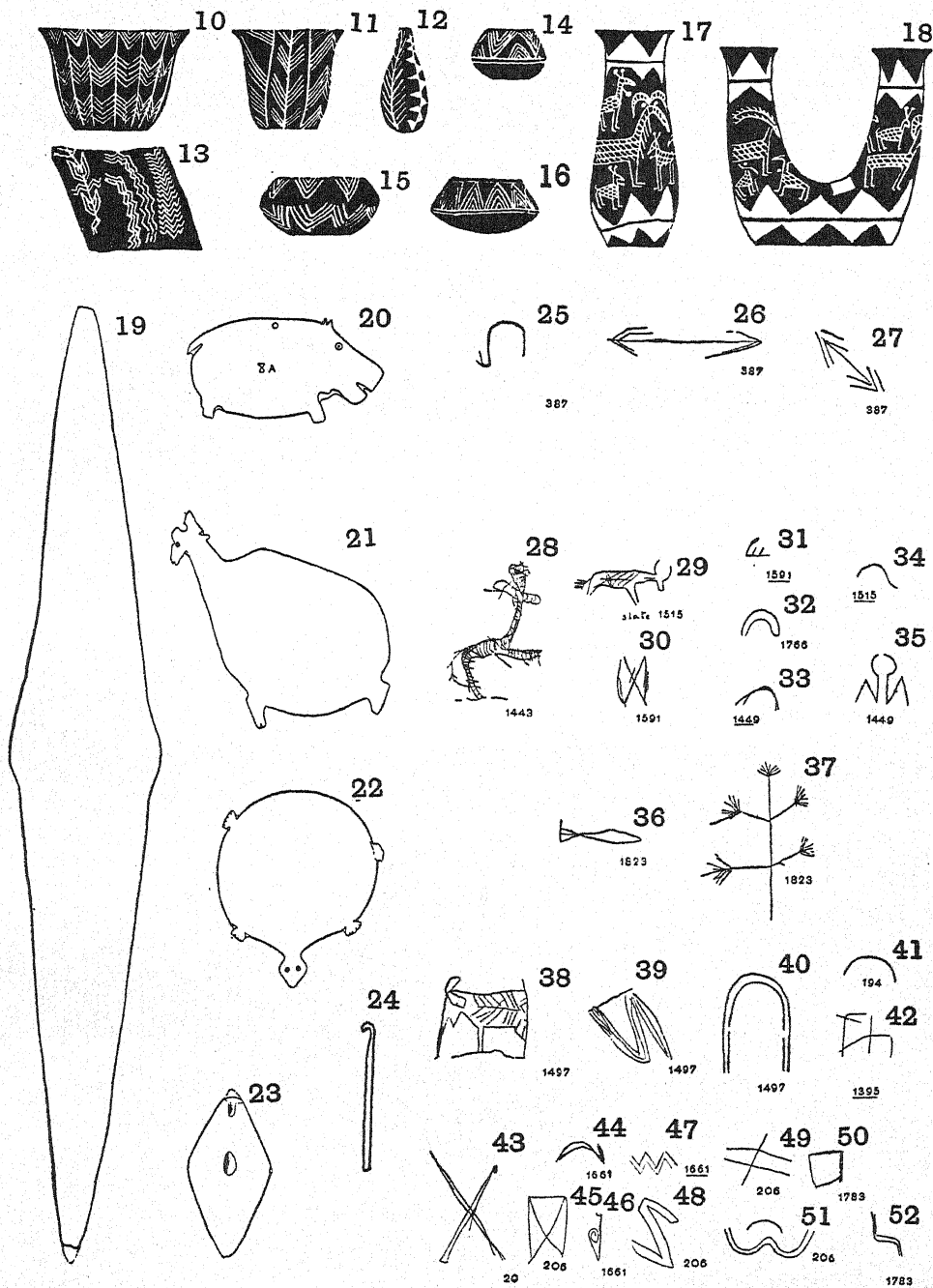
AMRATIAN: WHITE-LINE POTTERY, SLATES, MARKS, 31-34. (SCALE 1 : 6.)

PLATE VI



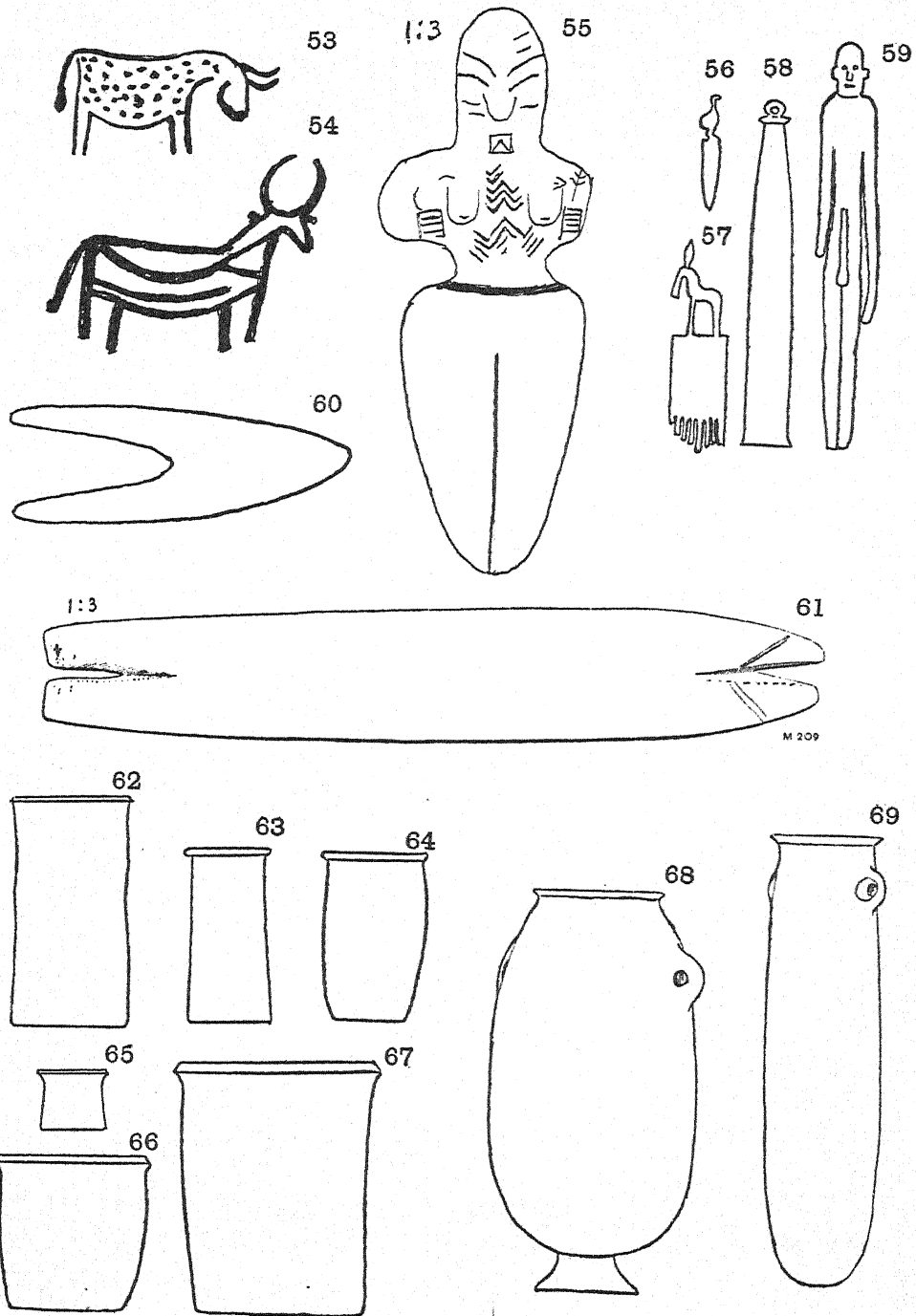
AMRATIAN: WHITE-LINE POTTERY, S.D. 31-32. (SCALE 2 : 9.)

PLATE VII



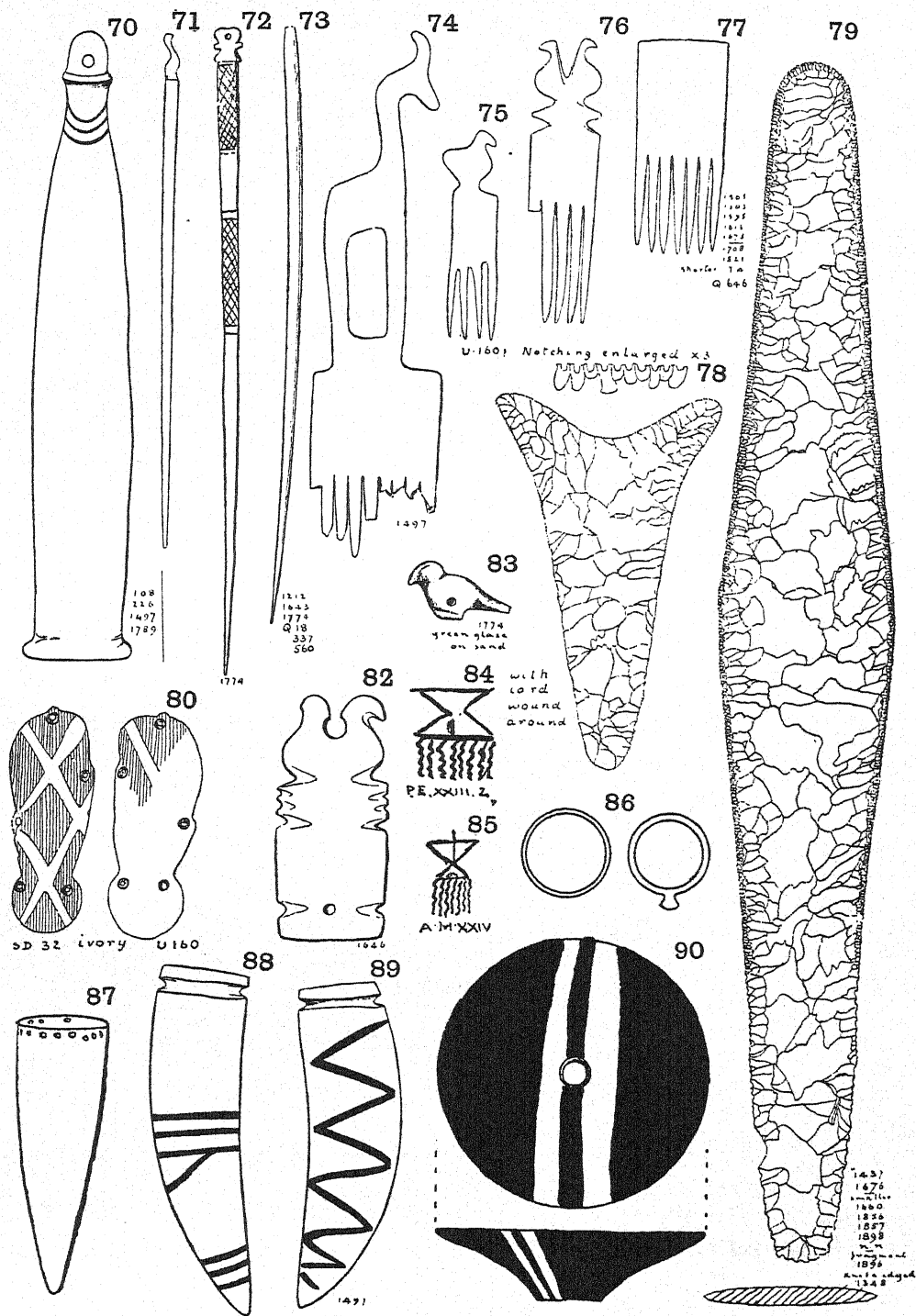
AMRATIAN: WHITE-LINE POTTERY, SLATES, MARKS, 31-34. (SCALE 1 : 6.)

PLATE VIII



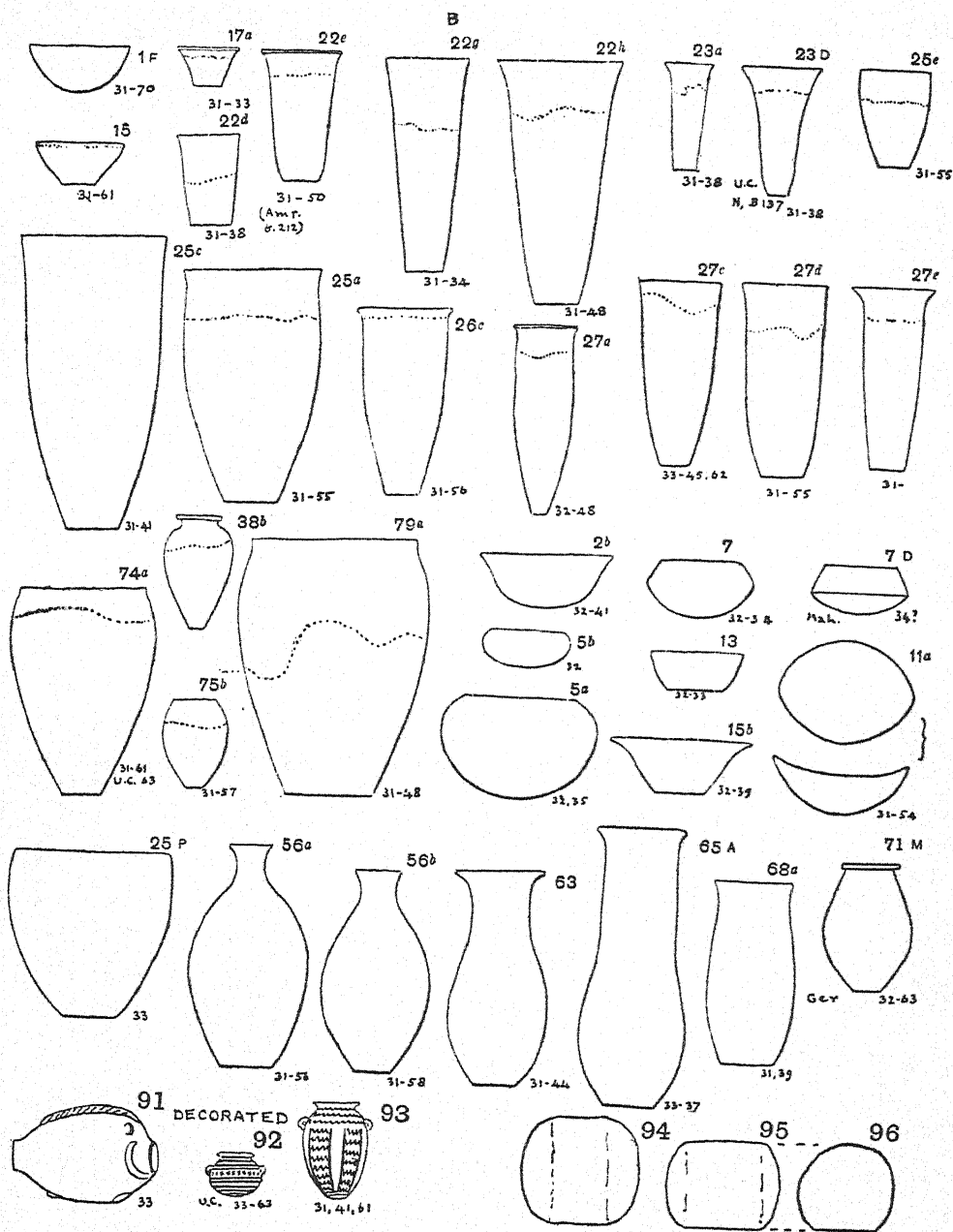
AMRATIAN: FIGURES AND VASES, S.D. 31-33. (SCALE 2 : 9.)

PLATE IX



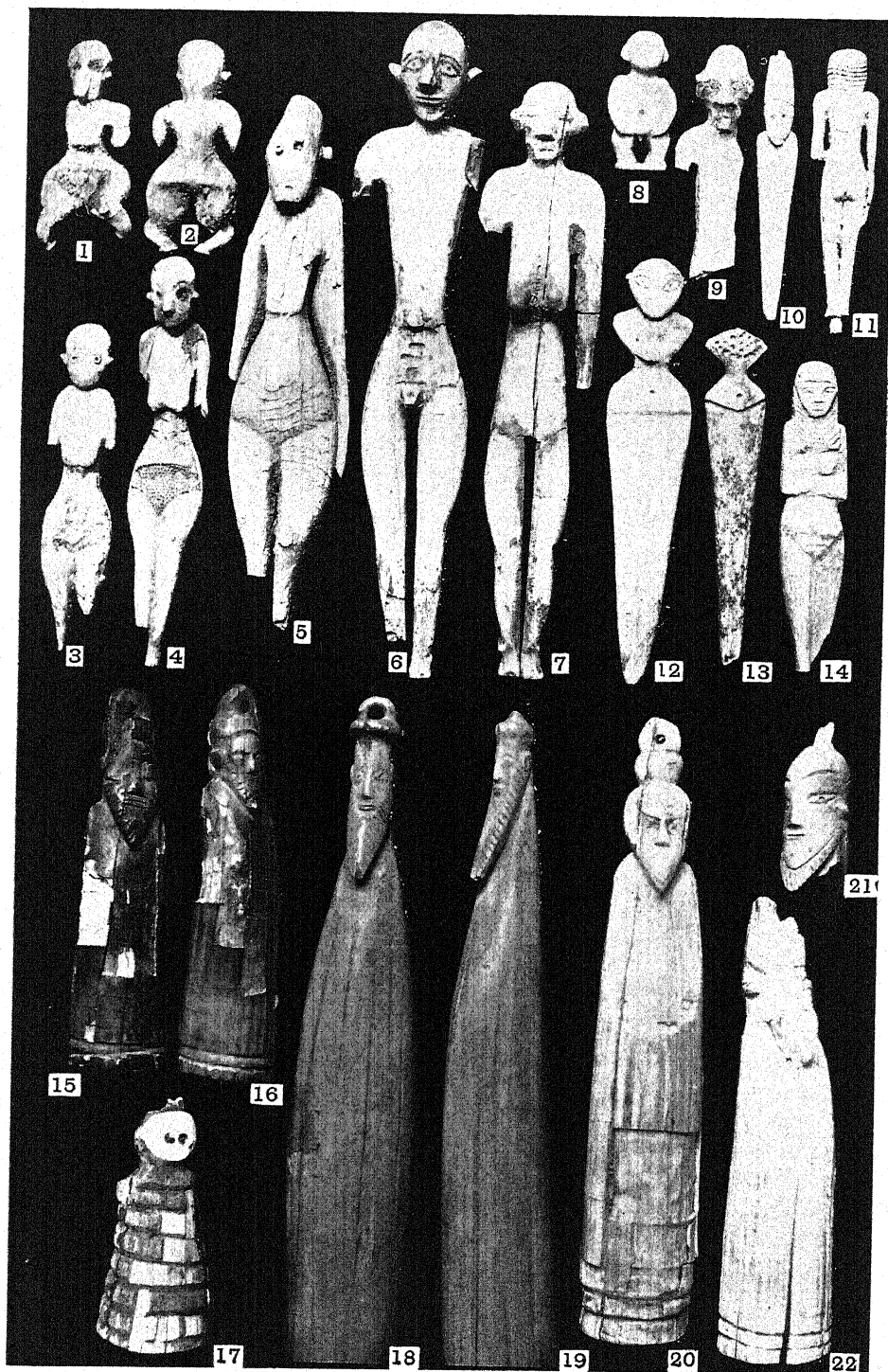
AMRATIAN: IVORY AND FLINTWORK, S.D. 31-34. (SCALE 1 : 2.)

PLATE X



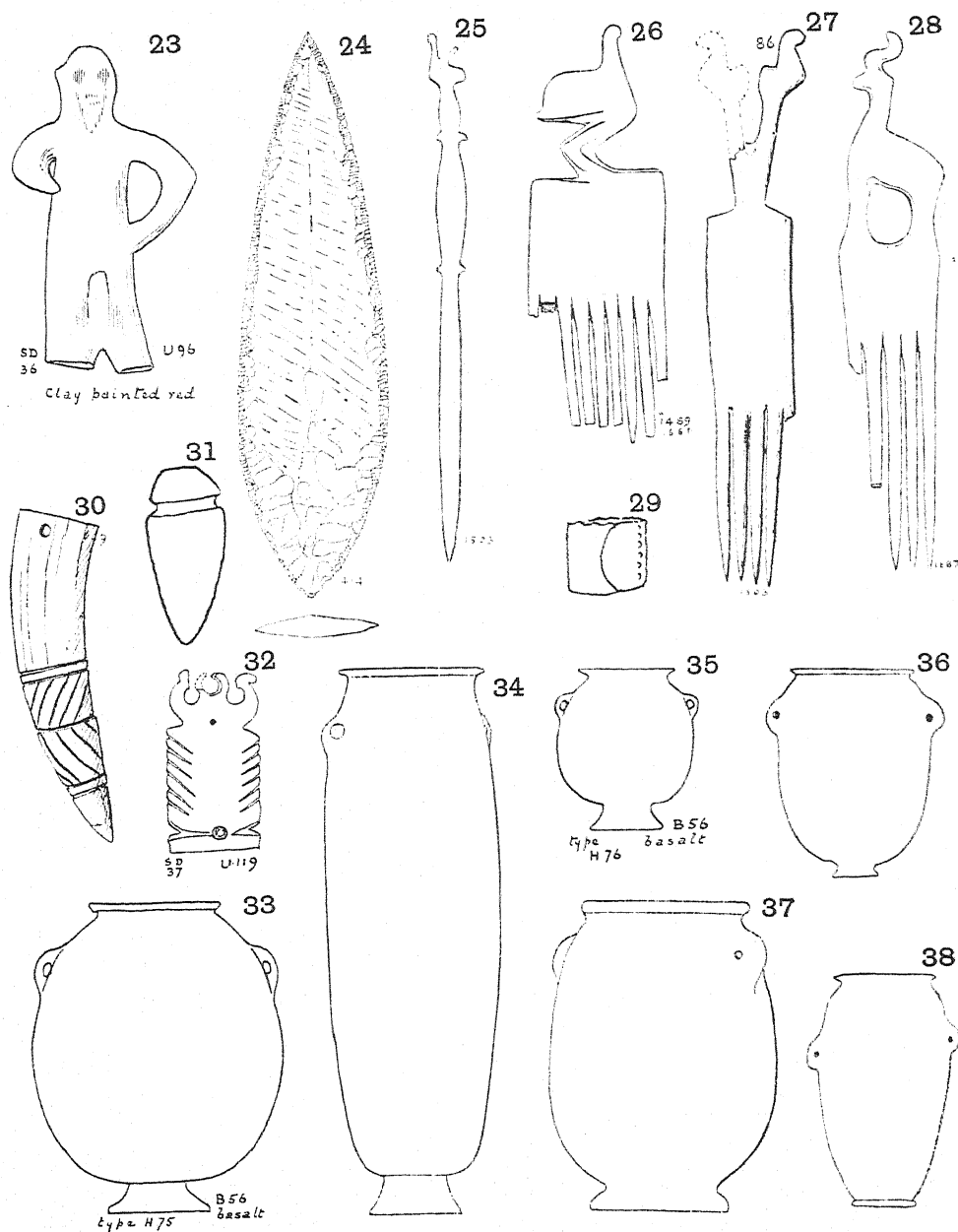
AMRATIAN: POTTERY, S.D. 31-34. (SCALE 1 : 9.)

PLATE XI



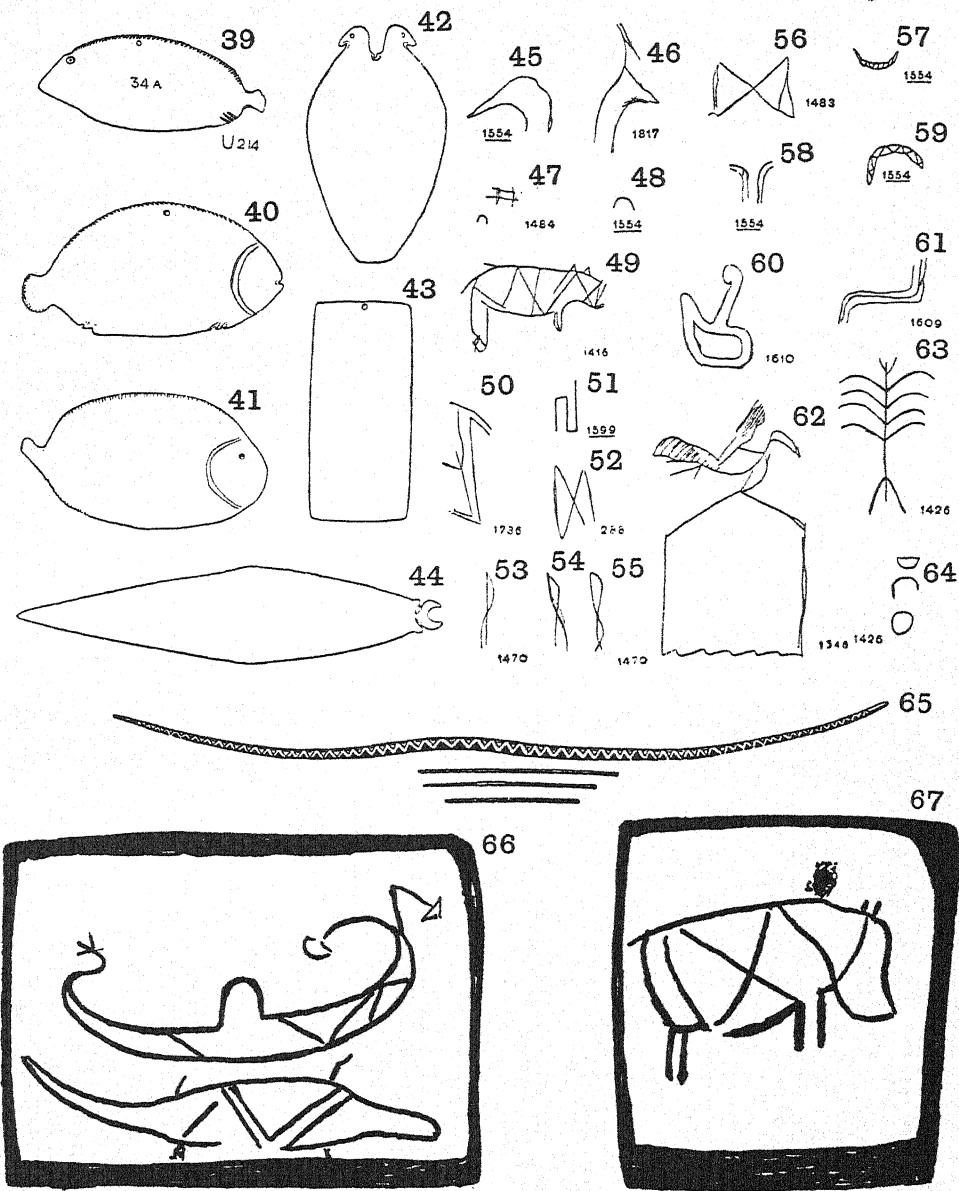
EARLY AMRATIAN: FIGURES (31-34) AND GERZEAN (38). (SCALE 7 : 12.)

PLATE XII



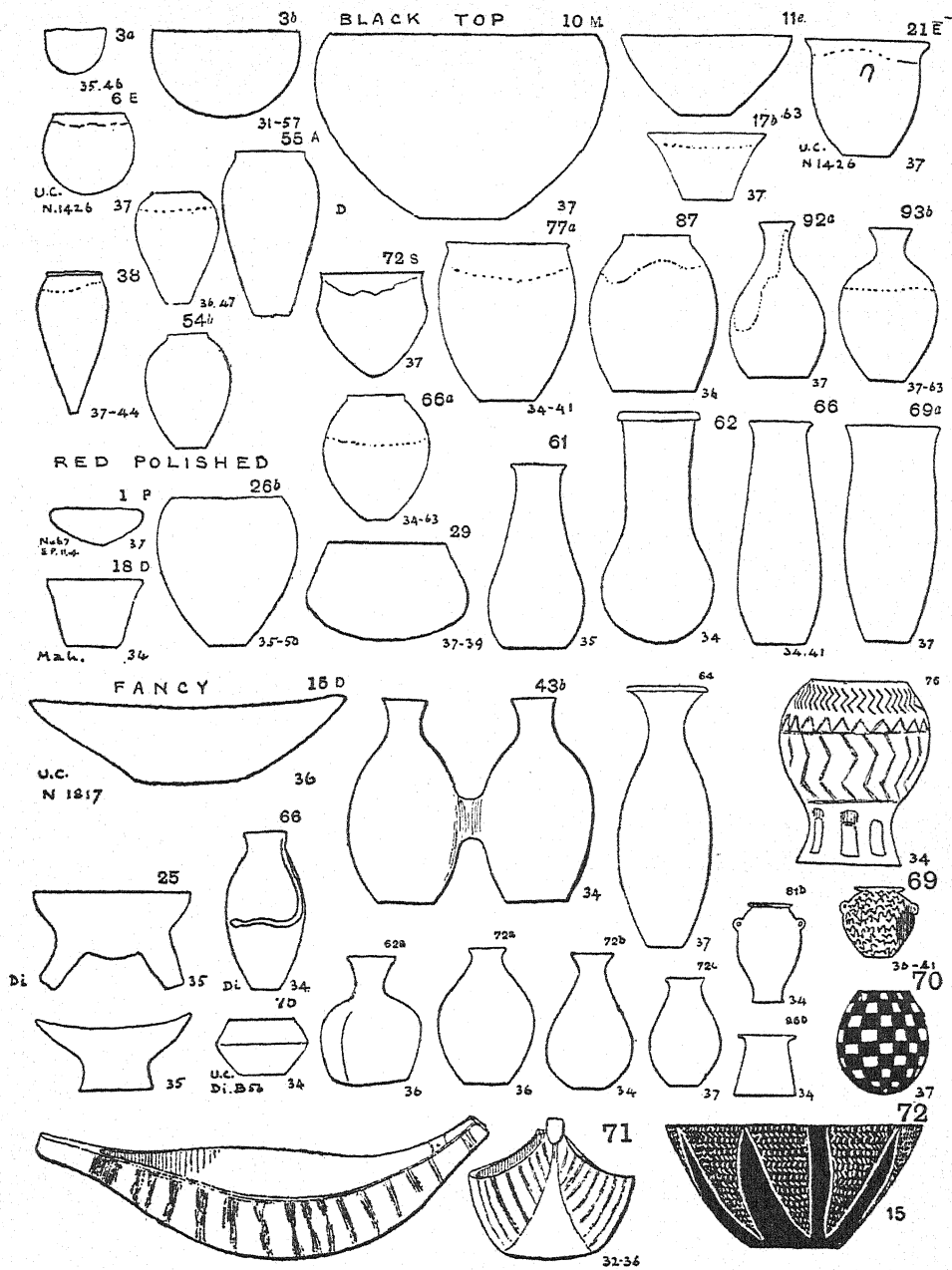
LATE AMRATIAN: FIGURES, COMBS, VASES, S.D. 34-37. (SCALE 1 : 2.)

PLATE XIII



LATE AMRATIAN: PALETTES, MARKS, BOW, S.D. 34-37. (SCALE 1 : 5.)

PLATE XIV



LATE AMRATIAN: POTTERY, S.D. 34-37. (SCALE 1 : 8.)

CHAPTER V

THE EARLY GERZEAN AGE, 5500 B.C.

27. *Entry in S.D. 38-44.*—We now reach the entry of the Gerzean style, so named from Gerzeh, four miles north of Meydum pyramid. The gradual change extends from S.D. 38 to 44. The earliest instance of pottery of this style is at S.D. 31 (X, 93), others at S.D. 33 (X 92), S.D. 36 (XIV, 69), and at S.D. 37 (XIV, 70). The imitation of marbling is at S.D. 36; then and earlier, the pots have handles copied from stone forms. It is clear, therefore, that a people living in rocky mountains, presumably in the Eastern desert, were producing both stone work and pottery imitations, as early as the Amratian period in Egypt; and these Eastern folk gradually entered and dominated Egypt, during S.D. 38-44, after which designs with shipping were prevalent.

Tusks.—The tusks carved with bearded heads began in this age (XI, 18, 19), but perhaps continued beyond it. The men are shown with rows of necklaces (XV, 2, 5), which are not marked on figures of women. The figure with a pot on the head (5) is one of a row which stood along the side of a grave as servants. The vegetable paste figures, which begin with arms at S.D. 34, have only stumps later (XV, 6, 7). They are painted red with black detail.

The ivory combs (XV, 10-16) are made less carefully than before, and have shorter teeth.

28. *Flint, Harpoons, Magdalenian.* Pl. XVI.—In flint work a new type is the round-butt knife with curved blade (XVI, 17). The forked lance (18) has a sharp notch, and is narrower and longer than before. The bone and copper harpoons were new implements for fishing (19-21). These harpoons are distinctive of the Magdalenian culture in Europe, together with the pear-shaped macehead (29) and the chipping out of flint armlets (*Tarkhan* I, iii, 3), which are all introduced in the Gerzean age. Can we then get some check on

THE MAKING OF EGYPT

prehistoric Egyptian dates by this connection? The most moderate of prehistorians—Peake—dealing with the periods of successive migrations in Europe and Asia, dates the Magdalenian 5500 to 5000 B.C., Solutrean 9000 to 6000 B.C., and Aurignacian before that. We find that the Magdalenian is S.D. 38-44, Solutrean earlier, and Aurignacian therefore before S.D. 20. At the latter end, we know that S.D. 79 of Ist dynasty dates from 4326 B.C. Thus the relation of the Egyptian scale to the European can be approximately settled; and further, two precise dates, at which current calendar regulation of months and seasons can be ascertained, will serve to fall into place and give more precision to the scale of dating (see sect. 13).

S.D.	B.C.
10 (?)	9000: Solutrean, Fayum, begun.
20	7471: Numbering of months begun. Badarian. Amratian.
40	5900 Gerzean=Magdalenian.
63	4800: Seasonal signs adopted, at entry of dynastic people.
79	4326: Mena, Ist dyn.

29. *Copper, Pear Mace.* Pl. XVI.—When we seek the beginnings of copper tools we find little square bars sharpened to chisel-ends or points (XVI, 23-26); such must have been held between the fingers as graters. The small hooked knife (22) of S.D. 40 was probably for pruning. By S.D. 49, a blade of copper appears. No. 29 is the first pear-shaped macehead, of S.D. 42; the mace continued as a ceremonial symbol down to the IVth dynasty, but was superseded later by the *khepesh* blade. The pear mace was almost always of white stone and so had the name of *hez*, white.

No. 27 is the first piece of glass dated. It is a head of Hat-hor, badly impressed so that the crown of the mould was first pressed in the middle, and left a false ridge. This is evidence that it is glass and not a hard base glazed; nor is it lazuli, for it has a minute conchoidal chip on the edge. The date of it is happily secure, as the pottery of the tomb is of S.D. 41, or about 5800 B.C. It cannot have been dropped there later, as the grave was unlooted, and it was

placed in an alabaster vase held between the arms of the skeleton (Naqada, grave 1759). No. 28, silver ball-beads; no. 39, silver cap of a jar. These are of S.D. 42. Gold first appears in solid beads at S.D. 38.

30. *Ivory, Magic Figures, Weights.* Pl. XVI.—Ivory tags for legs of water-skins continued, as nos. 30-32. Small vases were cut in ivory, nos. 33, 35; also a bull's-head amulet, no. 38. A comb with hairpin combined, no. 42, is clearly only for scraping, and not for securing the hair. No. 40 is a plumb-bob of emery, the hardest stone of all to work. Nos. 36, 37, model tusks of ivory, as amulets. No. 41, clay model of a head of garlic.

Magic pendants of slate, pl. XVII, 43, boat form, and bird form (44, 45); quadruped (46), pair of horns (47-49) and tag (50). The use of these was by tying three or four together, throwing them down, and noting the direction in which they lay (*Anc. Eg.*, i, 164).

Nos. 51-53, clay lumps, with line-marking in black, for which there seemed no obvious utility. On testing them as weights, they agreed with multiples of a unit of 121·4 to 130·8 grains, which would be the *daric* standard. The weights of the Amratian were on the gold standard, *bega*.

No. 54 is a block of emery, with a groove in which long stone beads were ground. Nos. 55, 56 are a gaming-board and men of clay, a funeral model for the future life.

31. *Palettes.* Pl. XVIII, 57-63.—Slate palettes for face-paint continued in use, of animal forms. No. 57 seems to have a palmate horn like an elk, and the rounded nose agrees with this; but such an animal is not known south of the Caucasus, so it is difficult to see how it was known here. Is this an indication of northern origin of the Gerzeans? The palmate horn appears also on Hittite sculpture. Many signs are incised on the pottery; the cross with ball terminals (99) occurs in Assyria.

32. *Pottery.* Pls. XIX, XX.—Many of the older types of pottery were maintained, but entirely new branches developed, as the Incised Black ware (XX) at S.D. 38. For this kind there is a source in Nubia, and others are found in Europe, as in Spain, at Butmir in Bosnia, and Hissarlik (Troy); see also XXVI, late

Gerzean. The ledge-handle jar, XX, 13, is another novelty, and ties this age with the Copper age in Palestine, where it had a long continuance.

The Decorated pottery, buff painted with red lines, is the distinctive mark of the Gerzean folk. It is based entirely on the copying of stone vases and the rush coverings in which stone vases were preserved. The patterns are spirals, put on with a line of several brushes, which were slid outward when turning a circle so as to join up in a spiral. The spiral pattern originates from a pad of fibre put on each side of a stone vase (see 31b). Stone vases, though frequent in our search over hundreds of graves, must certainly have been very costly, occupying an artist for many weeks, or even many years, to hollow and grind into shape; no circular form was turned, but worked by diagonal polishing in cross directions. The aloe in a pot or tub is frequently seen painted on pottery. One little example here (43 T) shows the timid beginning of the ship pattern at S.D. 40, a design which dominated the painting from S.D. 45 to 63.

Pl. XXI. Rough pottery was beginning, which ultimately succeeded to the fine painted ware. The deep conical jar, XXI, 81, 82A, 83, was the usual form for the great store of vegetable ashes in a tomb.

No. 106. The house model of clay is the earliest example of a dwelling. It has its elements in wooden structures, in the drip board and sill to windows, the great door lintel, and the sub-lintel, which is so marked a feature on the false doors of tombs. Below are pointed, disc, and club maces, also an ivory vase.

33. *Plan of Offerings*.—The burials show great increase of the system of offerings. The attitude was contracted as before, head south and facing west. At the north end beyond the feet were great jars containing ashes, sometimes dozens of them, but never a fragment of bone occurred, and the burnt offerings were entirely vegetable. An offering place was found, in one instance, at the mouth of a valley with a bed of ashes where the jars had been filled. The Wavy-handled jars were placed in the grave at the south, beyond the head. A pointed jar at the south end was perhaps for drinking; the Decorated pottery lay mostly in front of the hands and the body. The weapons

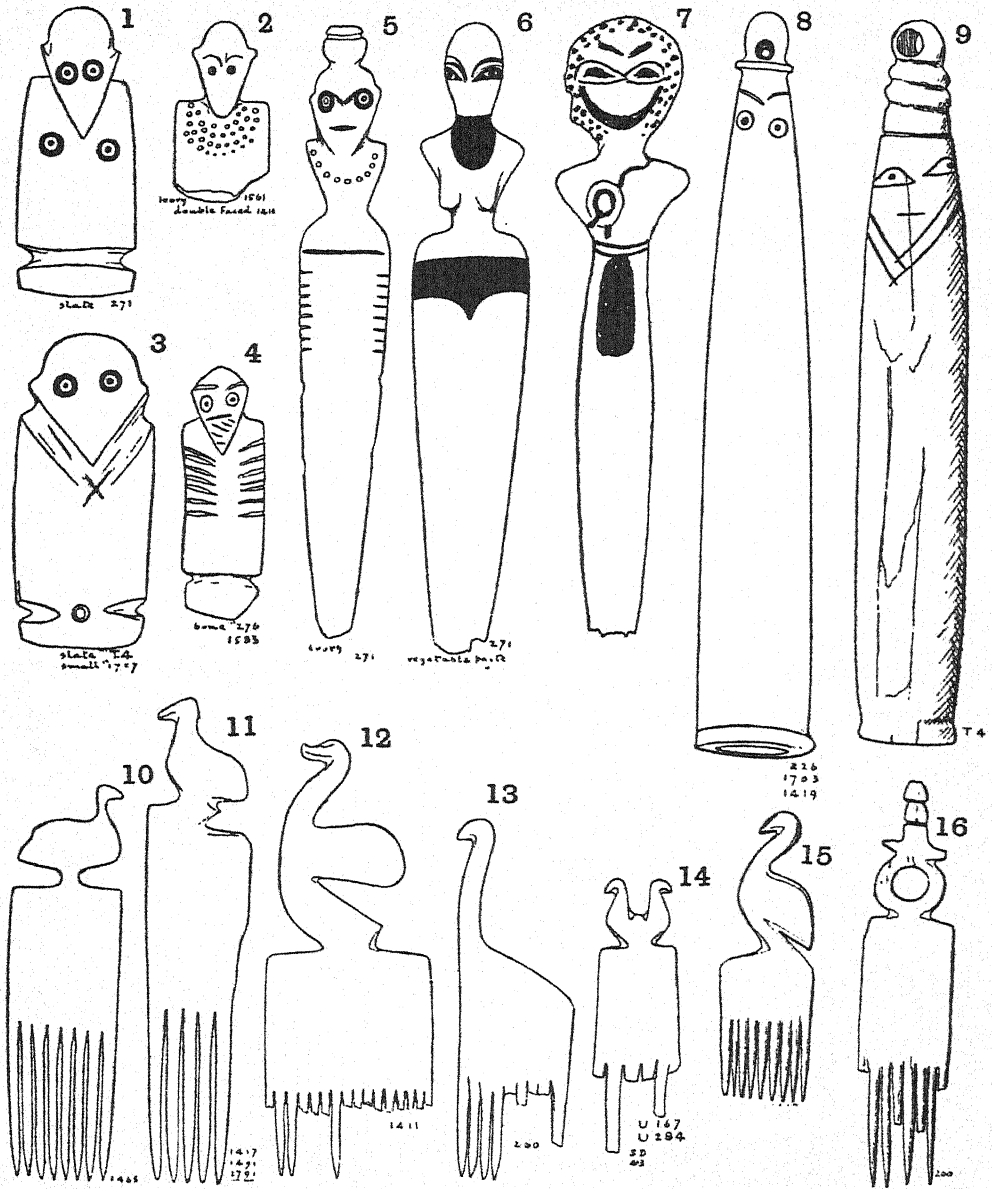
EARLY GERZEAN AGE, 5500 B. C.

were behind the body, malachite and eye-paint near the hands. Each object had its appointed position.

There are many instances of bodies completely unfleshed and the bones buried apart; sometimes the end of a bone was broken in order to extract the marrow.

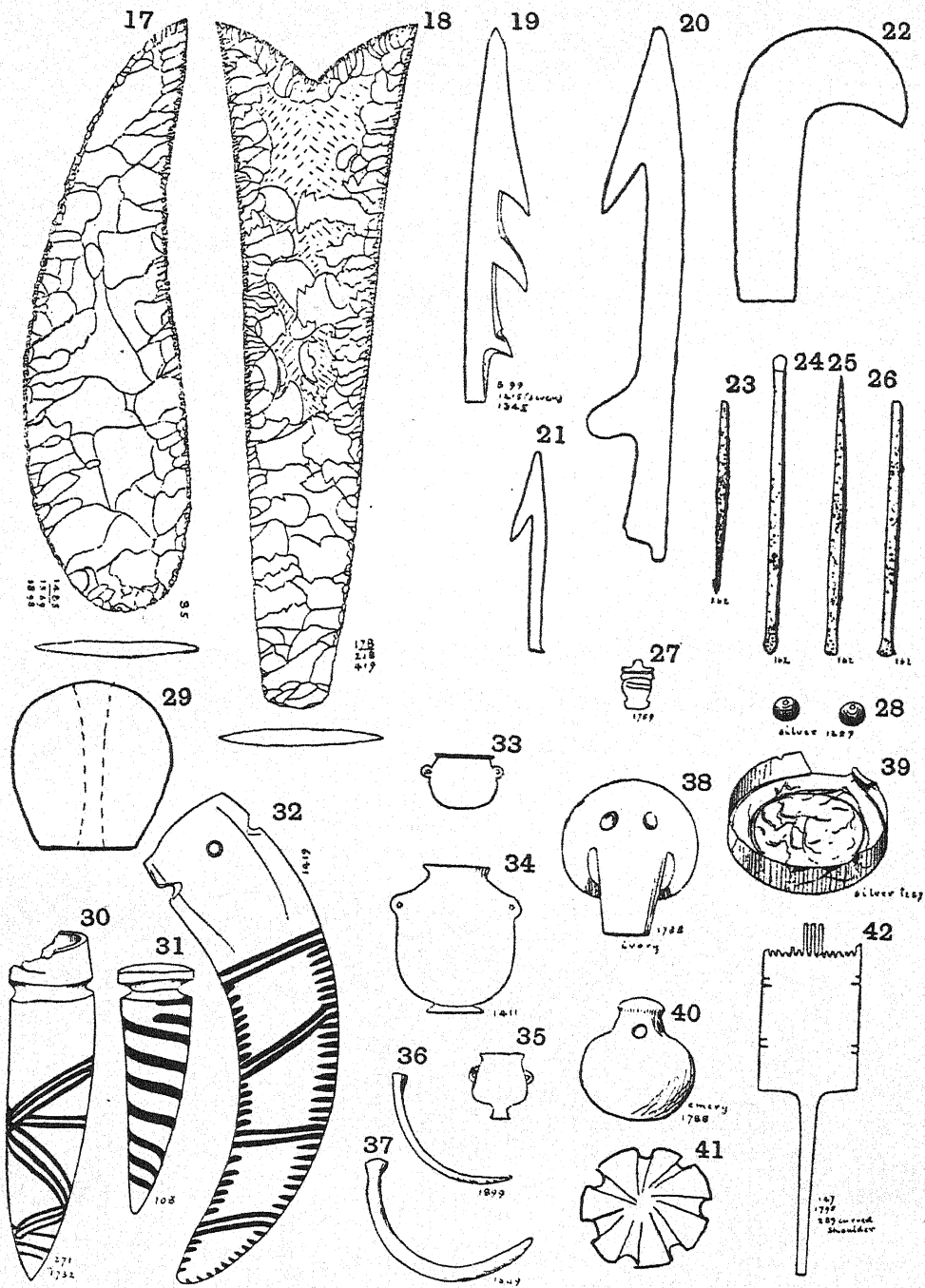
Such regular systems, in the ceremonial position of the offerings and in treatment of members of the body, show that there were fixed rituals for the funeral observance.

PLATE XV



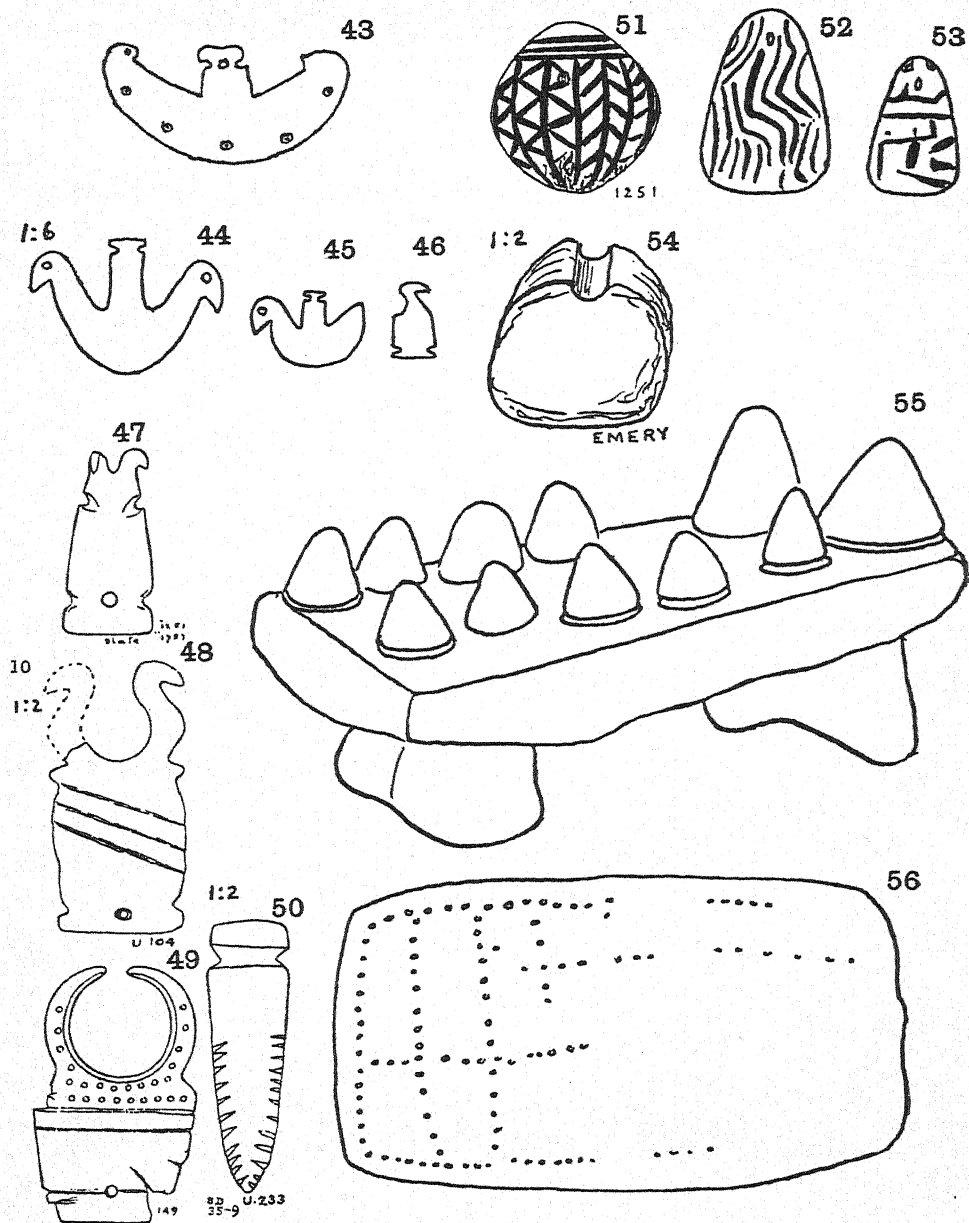
EARLY GERZEAN: FIGURES, COMBS, S.D. 38-44. (SCALE 1 : 2.)

PLATE XVI



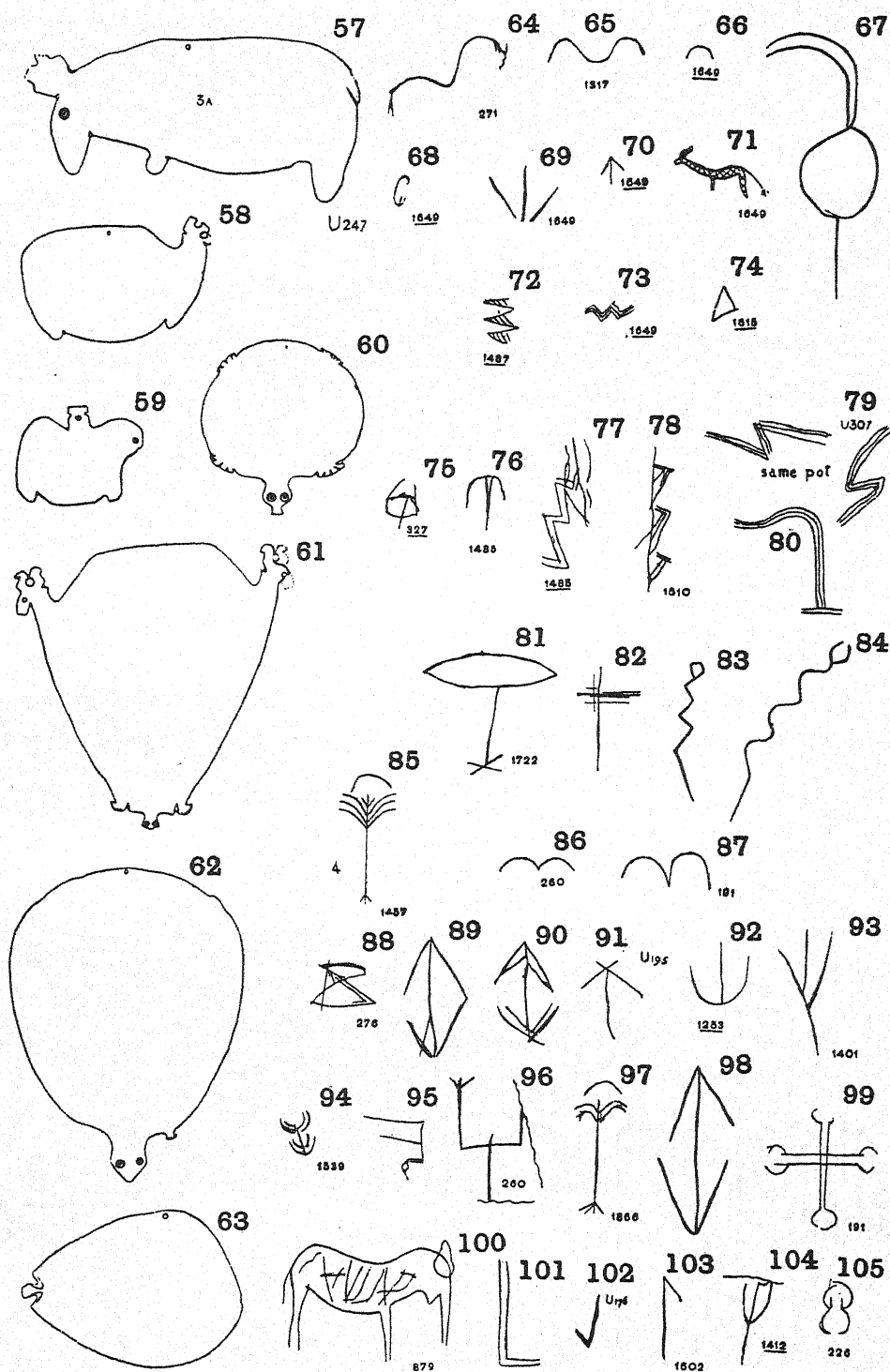
EARLY GERZEAN: FLINTWORK, IVORY, S.D. 38-44. (SCALE 1 : 2.)

PLATE XVII



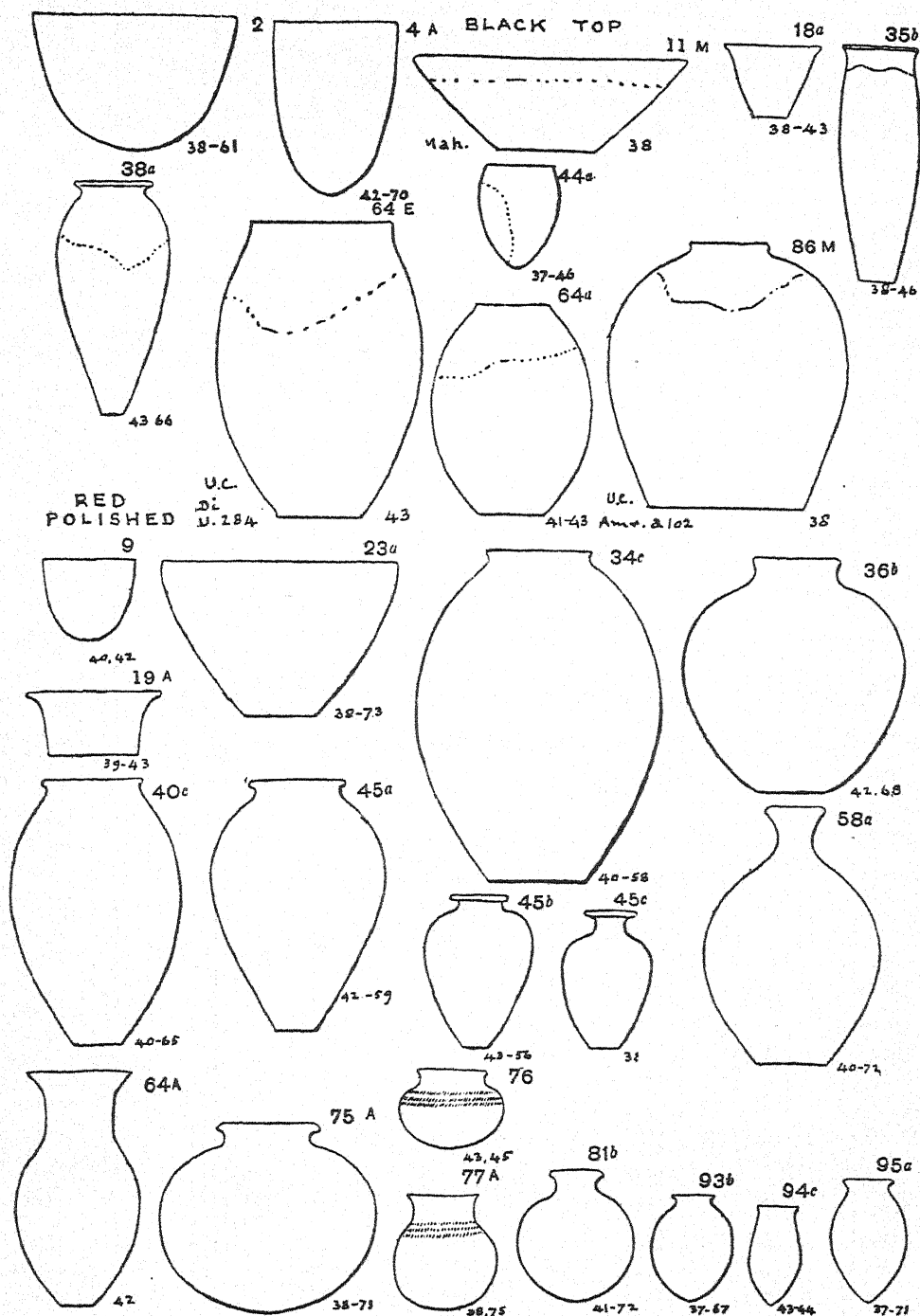
EARLY GERZEAN: MAGIC SLATES, GAME, S.D. 38-44. (SCALE 1 : 4.)

PLATE XVIII



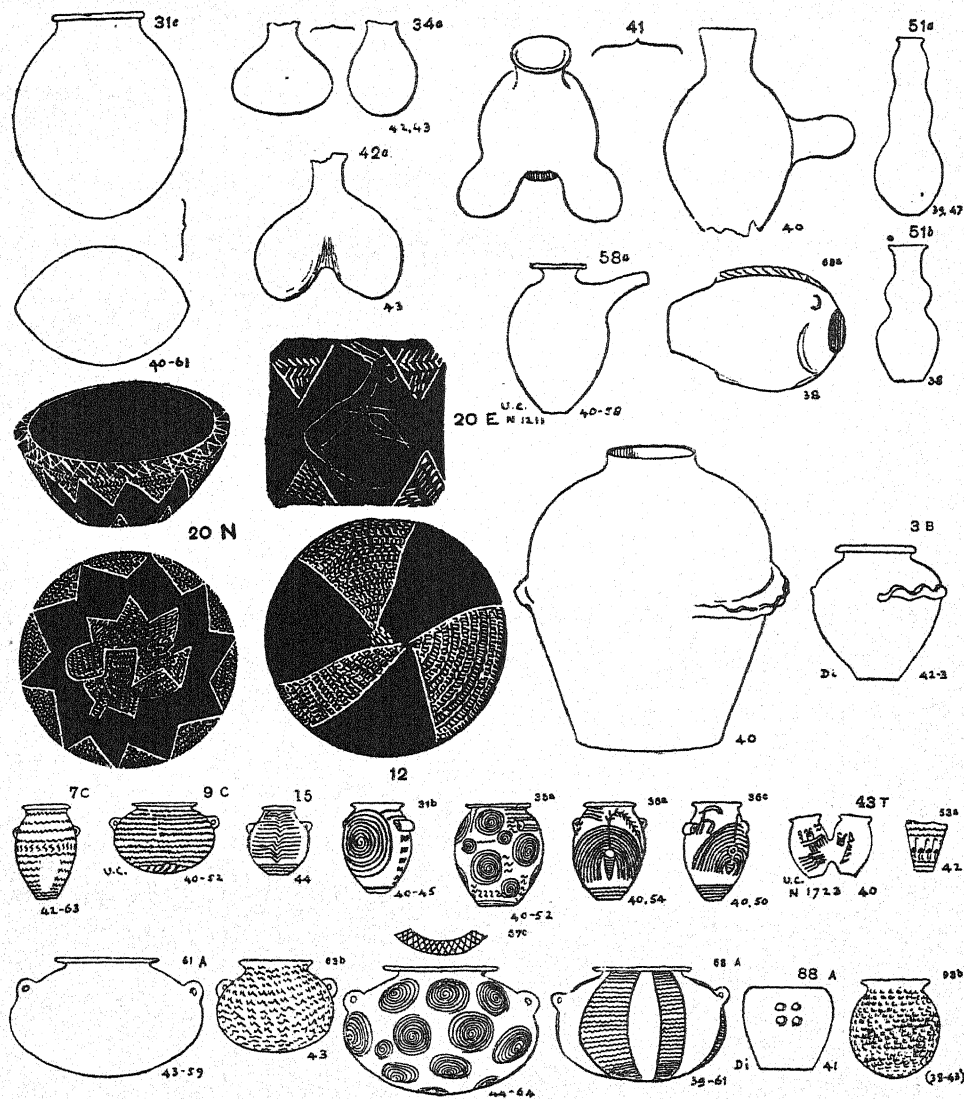
EARLY GERZEAN: PALETTES, MARKS, S.D. 38-44. (SCALE 1 : 5.)

PLATE XIX



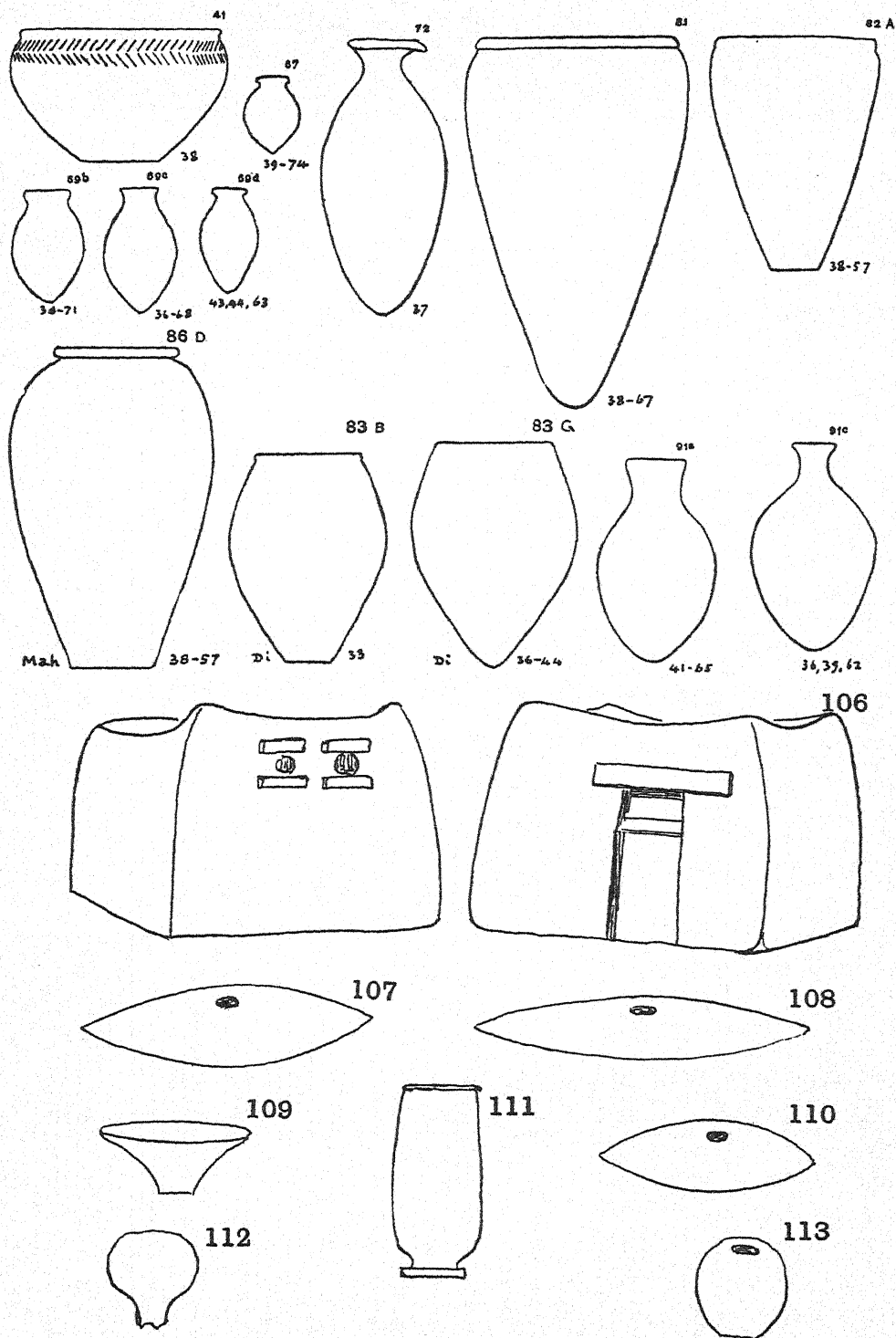
EARLY GERZEAN: BLACK TOP, RED POLISH, S.D. 38-44. (SCALE 1 : 7.)

PLATE XX



EARLY GERZEAN: POTTERY, S.D. 38-44. (SCALE 1 : 9.)

PLATE XXI



EARLY GERZEAN: ROUGH POTTERY; WEAPONS, S.D. 38-44. (SCALE 1 : 8.)

CHAPTER VI

THE LATE GERZEAN AGE, 5200 B.C.

34. *Copper, Ivory.* Pl. XXII.—We now come to the full Gerzean period, S.D. 45-60. Copper work shows increased use in the harpoon (1) and adze (2). The dagger (3) has a large flat blade, most like the earliest Spanish. The handle curls round to clip the blade in a strange way; a dagger from Susa seems to be derived from this form. Two pins, one with rounded top (4, 5), and a little scoop (6), show in their workmanship the same delicate handling. The broad knife with rounded end (7) is probably for flaying off a waterskin without risking a cut through it; the same form continued to the 1st dynasty.

Of gold, there is a little pendant (11) punched all over to give glittering points. The harpoon continued of horn and of ivory (8), and a double barb of ivory (10); perhaps the ivory arrow-head (9) is for the same use. No. 12 is a tag plug.

Hairpins with bird heads are in 13, 14. Combs are no longer made with spirited animal heads but are extremely degraded (15, 16, 17, 25). The comb with human head (18) continued the type of XV, 2. Ivory spoons began with a delicate form (21) quite different from the Badarian trough (IV, 43). An experiment was a slate spoon (22), with handle of black and white stone beads on copper wire. Nos. 23, 24 are the last stage of the magic dollars for divination.

35. *Games, Forehead Pendants.* Pl. XXIII.—This age was the hey-day of stone vases, for the regularity of work and beauty of the stones. The delicate ridge around the foot in some (27, 31, 32), by its balancing the ridge of the mouth, greatly improved the type, and gave a clearer start to the angle of the side.

The game of skittles or ninepins was completely provided in a large grave for a child (34). The three bars of marble placed here as a gateway are like the gate of logs of wood through which the balls are

rolled in a similar game in Norfolk. Larger skittles of pottery and of stone are also found.

Pendants were worn by women on the forehead, hung from the headcloth. No. 35 represents a mat of fibre, no. 36 is an oval of grey limestone curved to fit the forehead, no. 37 an oval cut in shell, with a hook at the bottom to hold up a veil over the nose and mouth, anticipating the forehead ornament and veil of modern Egyptians. No. 38 is of nacreous shell, and a similar form of thin copper. A pendant such as this is now used in Africa, as Galton describes.

Part of a gaming set consists of hare (39) and four lions (40), with two throwing-sticks (41) to give chances, 8 balls and 4 blocks. The use of slips of bark for throwing, to count how many are face up, is still common in Egypt. No. 42 is a lion and no. 43 a monster, no. 44 a limestone falcon.

36. *Flint Flaking and Pot Marks.* Pl. XXIV.—The flint working was much refined in this age by the regular parallel flaking. The first stage of reducing the twist of a natural flake brings it to one plane; the example figured (45) seems to have been left in the preliminary stage. After reduction to a plane, it was then ground down with emery (see 49) until the whole was smooth. Lastly, it received the decorative flaking of parallel grooves on one or both faces (46-47). These thin flakes were pushed off the flint by a lifting pressure on the edge, with hard leather or hippopotamus hide (?). I found that when trying to raise a flint with my shoe, a thin flake became detached. In the finest examples, the regularity and thinness of the flakes are beyond the ability shown in any other country or age. The forked lance (49-51) and dagger (52-53) carried on the earlier forms, but the lance was narrowed to a tang.

Pl. XXV. Some slate palettes continued with the animal forms, as the elephant (54). Besides animals, the boat form (63, 64) survived, as in XVII, 43. A large slate (57) has the emblem of Min (see XXXIV) in high relief. This points to the Aunu (Anu) people being already in the land.

There are new forms of the magic dollas (55, 56).

The square slate (65) with border lines began at about S.D. 55, and finally ousted all others.

The signs, or marks, incised on pottery, became more varied. They are here in order of date from S.D. 44 to S.D. 60: no. 70, scorpion; no. 71, lion; no. 72, ostrich, moufflon, gazelle, giraffe (?); nos. 74, 75, 93, fishing nets; no. 115, elephant. Most of the other signs are probably personal marks, such as women put on their water jars at present. No. 65A is a rude imitation of an inscribed cylinder.

37. *Pottery*. Pl. XXVI.—The pottery continued many of the old forms. Oval dishes on stands (20) and bird vases (69a) are beginnings of new life. The black incised pottery was mainly of this age, but is rare, being only found in one grave in a hundred, and it was certainly imported from foreign lands. The triangular pattern spotted over, and the rhombs lined across, are also found in Nubia, but the better opinion is that they started north of Egypt.

The two great distinctions of the Gerzean age are the Wavy ledge-handles (XXVIII, 3-8) and the painted designs (XXVII). Each ship carries an ensign, of which thirty-two varieties are figured here (118). The ships are of a form already fixed in the early Amratan period, S.D. 31-3, as on the white-lined bowl (VI, 4), with square cabins, and a branch at the prow along with the mooring rope. In the white-line age the oars are pointed (XXXVI, 1), but in the Gerzean the oars are almost round (XXXV, 3). On most of the paintings the oars are merely represented by single lines. The size of the vessels, according to the figures and cabins, appear to extend up to 60 feet in length, and the same size is indicated by the number of oars, if a double bank. This means a galley, like the war galleys of the French and other powers, usual two centuries ago. Of the thirty-two signs, four may be emblems of gods and so have a local connection, but otherwise there is no proof of their representing nomes. Whether they were signs of Nile ports or sea ports is only indicated by signs of four hills and of five hills (XXVII, 118, nos. 20, 21). Such are very unlikely on the Nile with its long plateau sides, but might easily be on the Red Sea, or up the Syrian coast. That there was some foreign trade is evident from the common use of emery and obsidian. Even papyrus boats were used in foreign trade much later, as Isaiah mentions Egyptian envoys coming in "vessels of bulrushes."

On the ship vases, aloes planted in tubs are frequently represented.

This is a regular feature of the modern Egyptian cemeteries, where aloes grown in pottery jars stand upon the graves. The flourishing of the plant without any connection with the earth is a symbol of immortality. The representation of these plants in the design may show that the paintings are not intended as scenes. They may rather be groups of emblems—the ship to the future land, the ensign for the patriation of the deceased, the mourners left on earth, the aloe symbolizing immortality.

Besides the ships, there were other paintings, a crocodile, *dorcas* gazelle, kudu, and frequently flamingoes in a row.

Marbling was common, as on XXVII, 16, 62, 63.

Pl. XXVIII. Rough pottery continued, and the big ash jars R 85 (XXI, 81-2) were made with a pointed base in the Late form, XXVIII, 47.

An interesting prototype is the snuff horn, XXVIII, 119 (Univ. Coll.). This is of black pottery, closed at the wide end and shaped as an ox-head at tip. In front is a small hole; a plug fits this, and a string hole at the back shows how the plug was secured. Along with this was a minute ivory spoon delicately made (120), to remove the snuff powder from the horn. This is plainly the origin of the modern snuff horn of the Basutos, who use a vegetable powder as snuff. The grave in which it was found is dated by the pottery to S.D. 58, and with it was a beautiful little stone vase, no. 121.

The ideas of the Gerzean age show much development. The flint-work deteriorates, as copper had begun to take its place more effectively. But, in the later Gerzean, a new style of long thin parallel flaking shows a more mechanical mind. The incised signs become abundant, but not in any regular or connected system.

The ivory tusks, solid and hollow, suggest magical practices. The colossal monoliths of Min at Koptos (XXXIV) show the religion of fertility worship, and the relief carvings point to a Red Sea origin. Shipping was common and deriving from many ports; emery, so much used for sawing and polishing hard stones, was traded by sea from Smyrna and from the Greek islands. Games were fully developed, both as board games and bowling at skittles. Men had long beards and wore necklaces of beads. Face pendants were in use on women's

foreheads and held up some sort of veil. A brick house model shows the use of wood in the lintels of doorways.

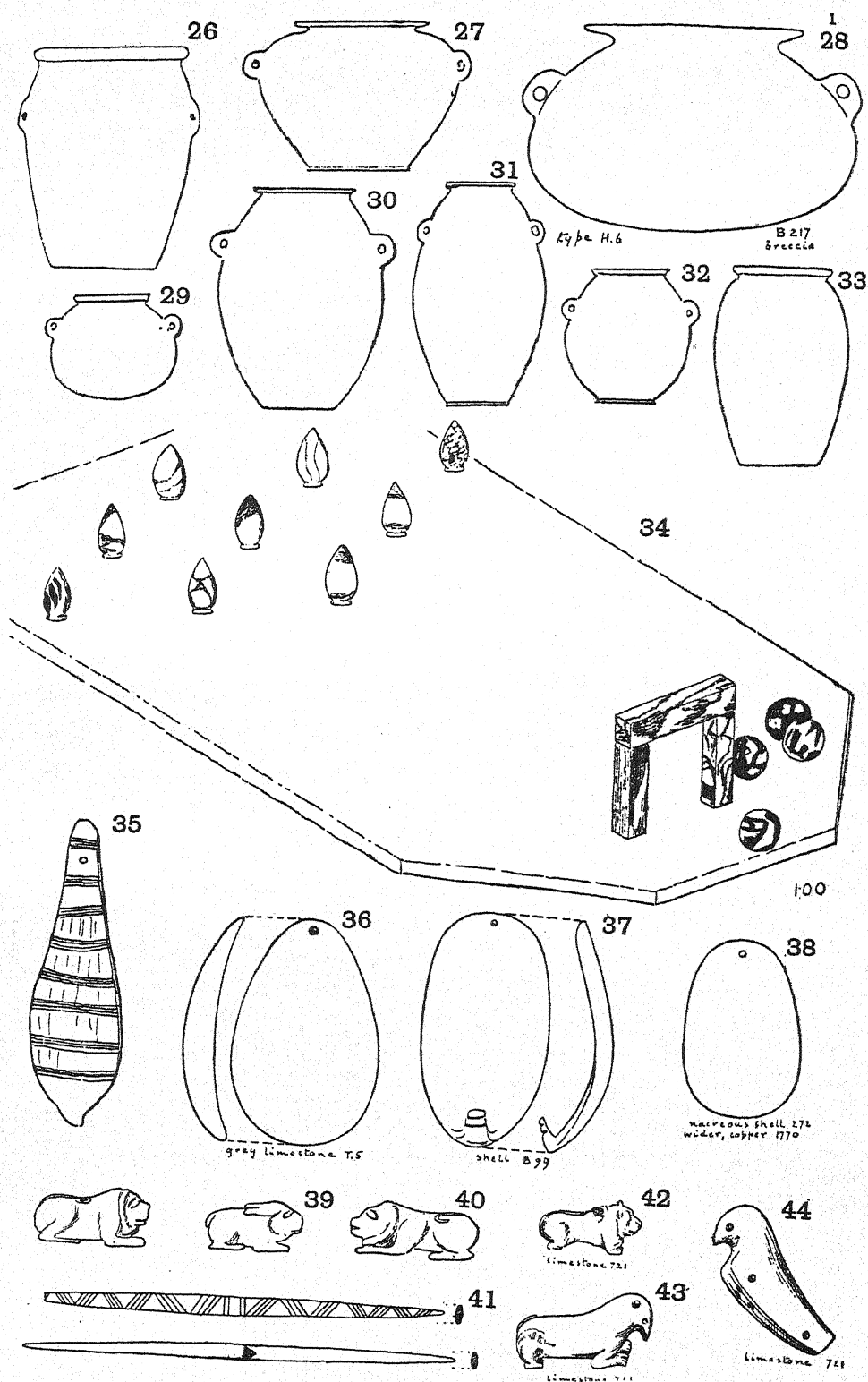
38. *Skull Measurements*.—The subject of differences of physiognomy in the prehistoric age should not be neglected, and the detail of this is set out in Appendix II. Here we will only note some conclusions. The first difference that we see (pl. V) is that there was a minor and a major group of Badarians. The minor is less in dimensions, so that the capacity of the skull is a sixth less than that of the majority; it was more prognathous and had a shorter nose and long upper lip, thus clearly inferior. The majority type will agree with that of the ivory figure (IV, 46), and if so, the minority was the steatopygous people (IV, 39, 40). This steatopygous people lasted until the Gerzean age, and was then probably absorbed in the higher population.

39. *Source of Gerzean*.—The question remains, from whence did these Gerzean people come? They had pointed beards (XI, 18, 21) and so differed from the earlier and most of the later invaders. The type seems to have been well continued, as it was closely the type about the 1st dynasty, exemplified in the ivory head, XXXVII, 1. It is almost the same as the Amorite of Syria, who has a slightly more forward growth of beard, perhaps due to some Bedawy ancestry. We see also another bearded people who were on good terms with the Egyptians at the beginning of the 1st dynasty; they wore pigtails (XXXVII, 3, 4) and brought tribute of stone vases just like those of the Gerzeans (*Royal Tombs* II, iiiA, 2; iv, 15; *Anc. Eg.*, 1920, 17). They seem to be another branch of the same people, only wearing the hair clubbed. One (4) is dressed in a long spotted robe (*R. T.* II, iv, 5), like that worn by the conqueror on the gazelle palette (B.M.). The stone vase suggests the Red Sea region or North Syria, and the pigtail of hair is like that of the much later Hittite. They were within reach of Egyptian trade from S.D. 31, and they brought in the Asiatic lazuli and silver, and the Wavy-handled vase known in Palestine. It seems, then, most likely that the Gerzean invasion came from Syria, and perhaps rather from the northern part, or possibly from the Red Sea mountains.

PLATE XXII

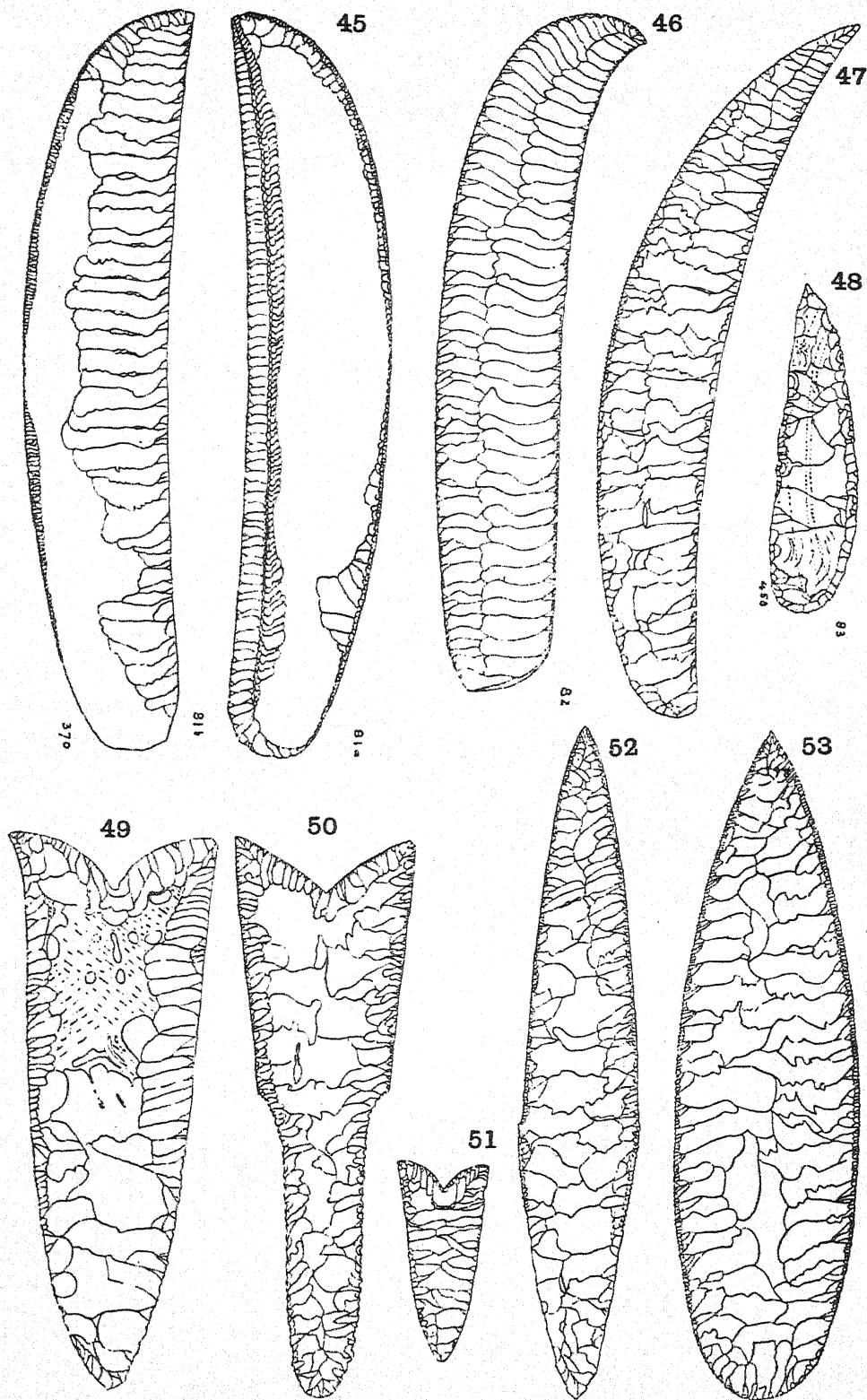
LATE GERZEAN: COPPER, IVORY, S.D. 45-60. (SCALE 1 : 2.)

PLATE XXIII

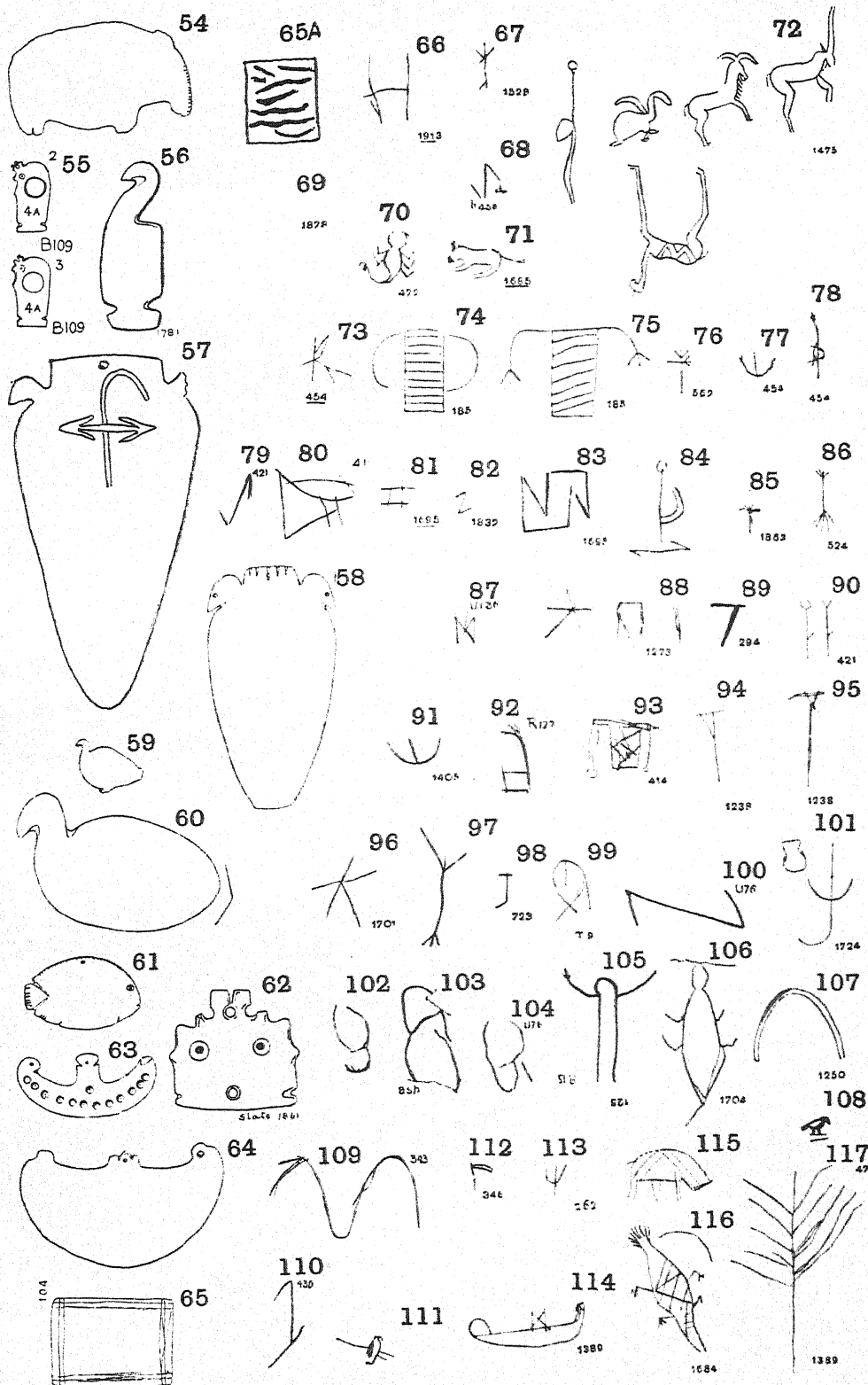


LATE GERZEAN: VASES, GAMES, PENDANTS, S.D. 45-60. (SCALE 1 : 2.)

PLATE XXIV

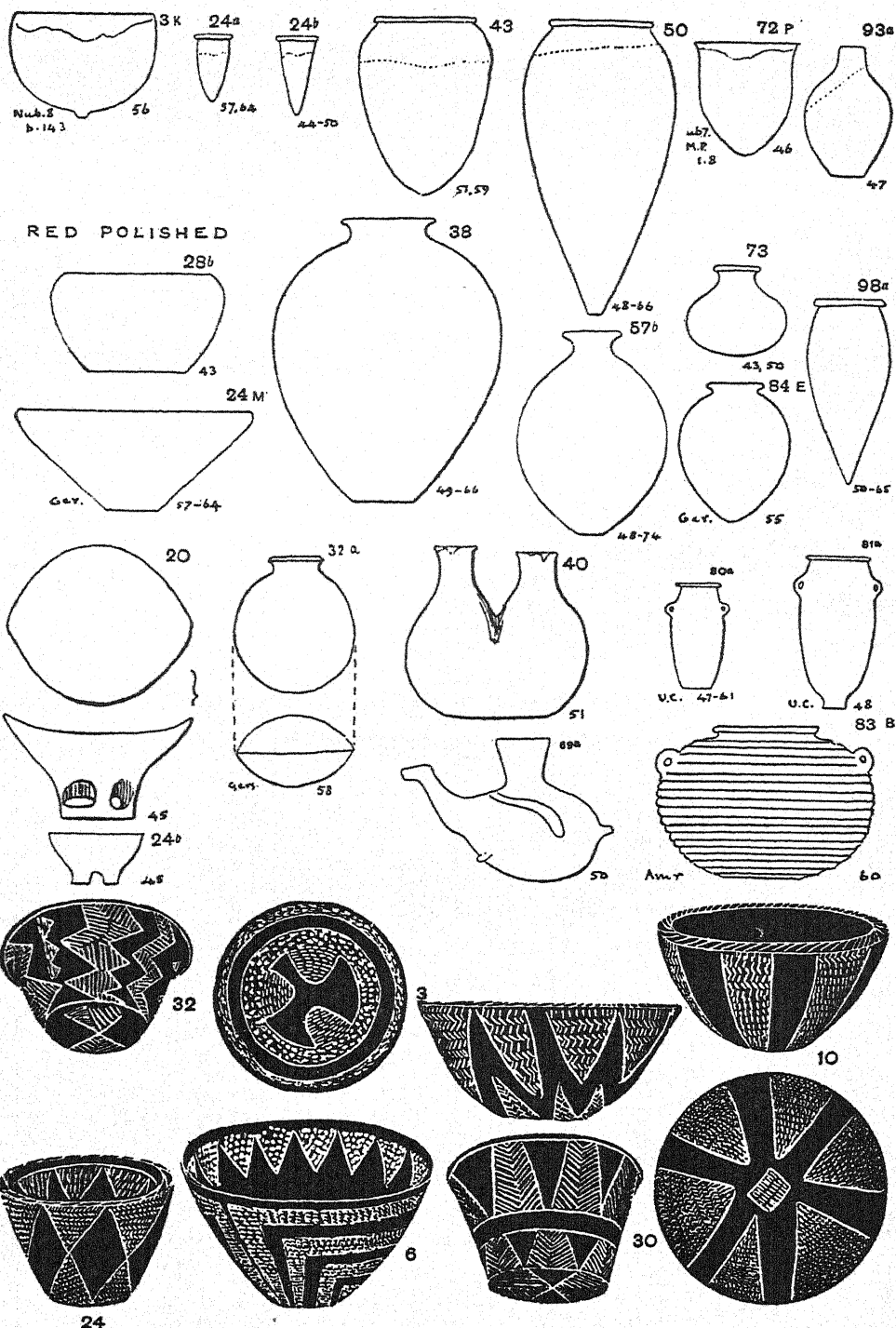


LATE GERZEAN: FLINTWORK, S.D. 45-60. (SCALE 2 : 5.)



LATE GERZEAN: PALETTES, MARKS, S.D. 45-60. (SCALE 1 : 6.)

PLATE XXVI



LATE GERZEAN: BLACK TOP, FANCY, INCISED, S.D. 45-60. (SCALE 1 : 9.)

PLATE XXVII

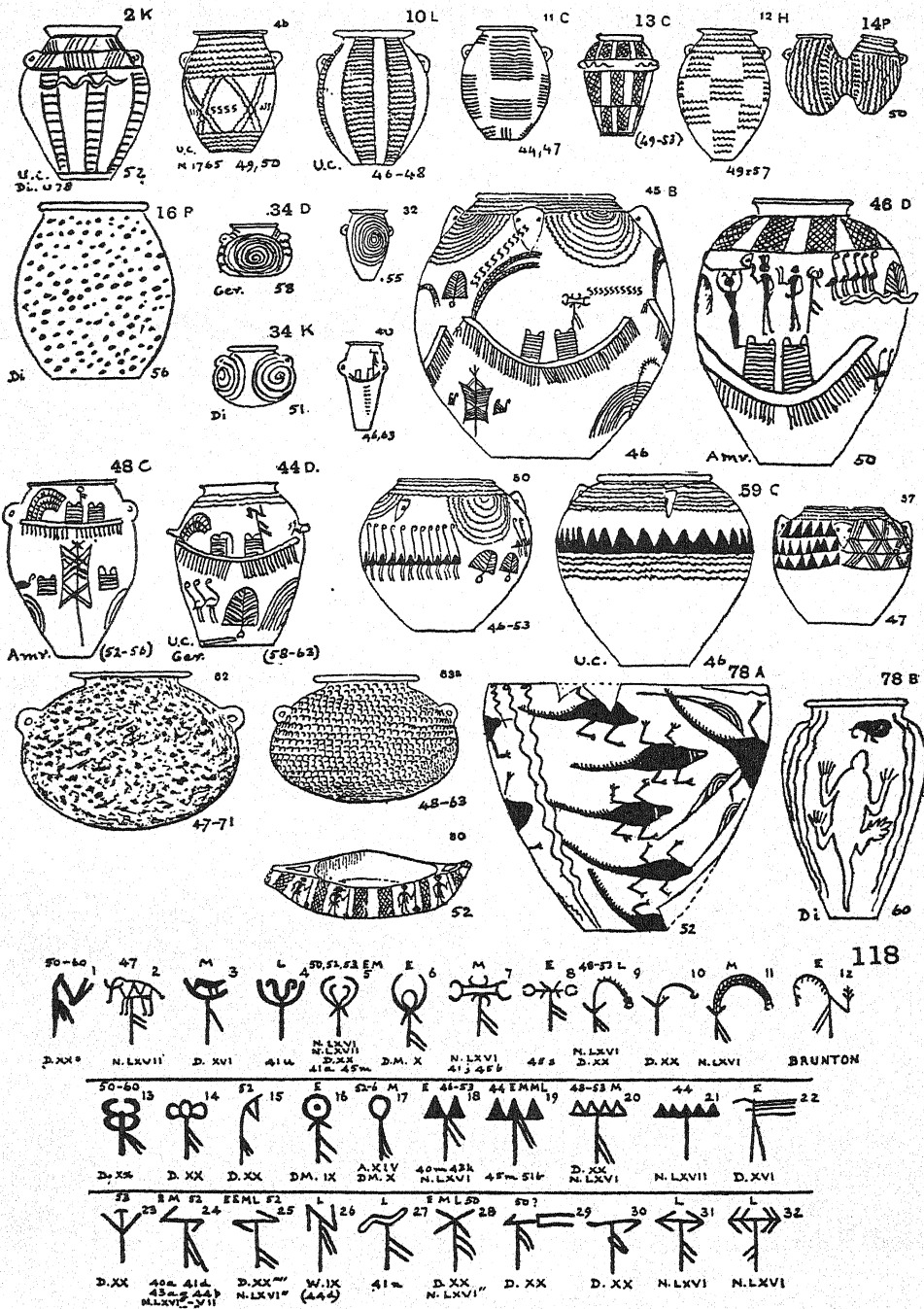
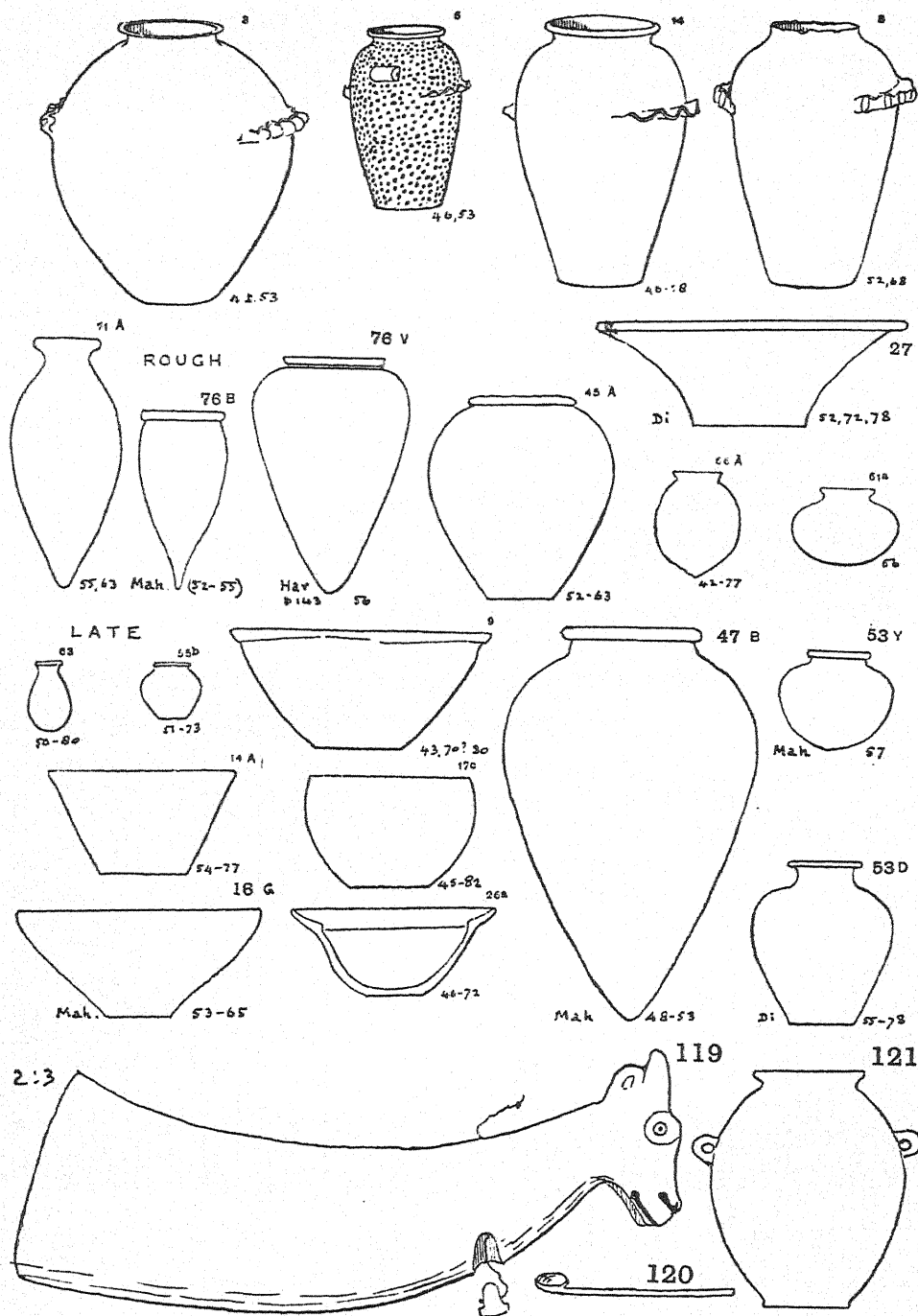


PLATE XXVIII



LATE GERZEAN: POTTERY, SNUFF HORN, S.D. 45-60. (SCALE 1 : 8.)

CHAPTER VII

THE SEMAINEAN AGE, 4800-4300 B.C.

40. *Increase of Copper ; Writing.*—We now reach the last of the ages, the Semainean, best represented at Semaineh, 17 miles west of Qena. This period (S.D. 60-75) has no generally distinctive culture; it was a long stage of turmoil, with remains of decaying civilisation in which a medley of peoples found themselves involved in a struggle, with new elements coming in from different directions. Thus it was much like the period between A.D. 400 and 1200, when there was no growth left in the old culture of the Mediterranean, but new influences and forces were continually thrust on it, and needed a long period to come to an equilibrium.

The beginning of this age seems to be marked by the establishment of seasonal signs for the periods named inundation (*mu*), growth (*aakhet*), and housing (*per*). These were fixed at 4800 B.C. and shifted by the current calendar, being transferred in precession. The sixteen stages of sequence dates from 63 to 79 might very likely cover five hundred years.

Pl. XXIX. The use of copper continued to increase. The triangular dagger of the last age was stiffened by a mid-rib (6), and then an entirely new dagger came in (XXIX, 8), with a quadrangular section and hollowed faces to gain a thin edge, a perfectly designed weapon, so closely like the later rapiers of Cyprus that it is certainly Asiatic. There is no possible doubt of the age of this, as I found one such dagger in a rich tomb which was quite undisturbed, and removed it from its position; the hip bone against which it rested was stained green with the metal. Around the skull and neck lay a string of large beads of carnelian, lazuli, and other stones, and beadwork mittens were on the hands; five kinds of pottery date it to S.D. 63. The dagger found in this burial differs from the later daggers (LXI, 5) in the attachment by only two rivets, while all the Gaza daggers have four or six rivets (*Ancient Gaza* II, ix).

Copper was abundant just before the 1st dynasty, and heavy square axes and round-headed adzes (XXIX, 5, 7) appear. There is also a curious blade sharp at both ends (9). The needles (1, 2, 3) at S.D. 66 have a regular eye and are double pointed (1, 2); by S.D. 78 they are flat-headed (4), but the eye was yet only made by cutting a crack along the stem, as there was no drill fine enough for it. The only notable flint-work is a small ceremonial model of the forked lance (15) used in the funeral rite of "opening the mouth." The funerary model of the disc mace-head (10) was made down to S.D. 63.

41. *Stone Vases, Ivory, Weights.* Pl. XXX.—The stone vases (19-21) reverted to older Amratian types, besides carrying on the Gerzean toward the dynastic forms (23-25). The ivory spoons were large and clumsy (30, 31). One comb is either a survival or it continued the old tradition (34), the other is a base corruption (35). The hairpin (37) has the double bird head. An ivory ring (32) with four falcons on it is of S.D. 71; it is likely that the ring with two lions (33) is of about the same age.

The rows of animals on a small vase (42) dated between S.D. 52 and 68 seem to be of true Gerzean work; and this would place the motive of the rows of animals on the ivory handle (43) as being of the same origin, and not due to a new influence. An example of this grouping is given in a letter from the late Joseph Offord, who wrote: "When I was in South Africa in 1871, millions of antelopes used to come into Cape Colony from the Kalahari desert, when Lake Ngami dried up in a hot season, just like the crowd on the 'Brooklyn ivory'" (43).

A fresh standard of weights, the *qedet*, came in at the close of the prehistoric age, and lasted throughout the dynasties, down to the Roman age. The earliest form is conical with slightly curved sides. Nos. 40 and 41 are of 6 *qedets* and 1 *qedet*.

42. *Palettes, Pot Marks.* Pl. XXXI.—The slate palettes were influenced by the dynastic people coming in, with the falcon as their royal emblem, and producing falcon palettes (XXXI, 44). The conventional double bird was refreshed by naturalism (48), and the fish was lost sight of, being degraded to an oval (50) with cross border, and restarted with a long straight tail (51). The square developed an "Oxford" frame (54).

In the marks on pottery there is no fresh invention of linear signs. The falcon standard of the dynastic people is shown with an ostrich feather, no. 60; the pentagram first appears in no. 64 at S.D. 64; groups of animals are continued, nos. 73-77; and the plant of the south, no. 78, comes in, a stage later than the crown of the north.

43. *Pottery*. Pl. XXXII.—In the pottery, the Black-topped is almost extinct, and the Red Polished style diminishes. The Wavy-handle jars (19-71) run through all stages to the cylinder by the end of the prehistoric time, having names of pre-Menite kings written on them in ink. The Black Incised only remains in the form of a Nubian basket with conical lid fitting an internal ledge, strongly marking southern influence. The Decorated pottery is in its final degradation, with streaks of parallel lines, rough comma-shaped dabs of colour, or rough signs like the star (24 B). The little vase D 49 B, between S.D. 55 and 66, seems to show the last trace of figure drawing.

Pl. XXXIII. The Rough pottery was much reduced, and the distinctive Late pottery was the more usual style. The large ash-jars (L 33, C 34) passed into the form which lengthened out to L 31. Such long jars were made of soft brown ware, and were often placed in the grave to form a partition across a side recess in which the body lay. They were copied in better clay, as 36 K, and became usual in the beginning of the Ist dynasty. The spouted pots, which had been upright, degraded to the hideous form L 71 P. The bottles were clumsily shaped of burnished late ware, in place of the fine red polished ware of earlier times.

The Semainean period, in its conflict of prehistoric and early dynastic races, brought little general advance of ideas. There were a few improvements in production. The new ribbed daggers of copper gave an advantage to the dynastic invaders. Otherwise times were too confused for new invention, and workmanship fell back in the arts of ivory carving and pottery. The dynastic people greatly advanced as soon as they were settled. Their development is traced in chapters X and XI.

44. *The Min Statues*. Pl. XXXIV.—Some monuments, which have not yet been dated, were recovered at Koptos buried in holes in the temple foundations. These were parts of three colossal figures of Min,

THE MAKING OF EGYPT

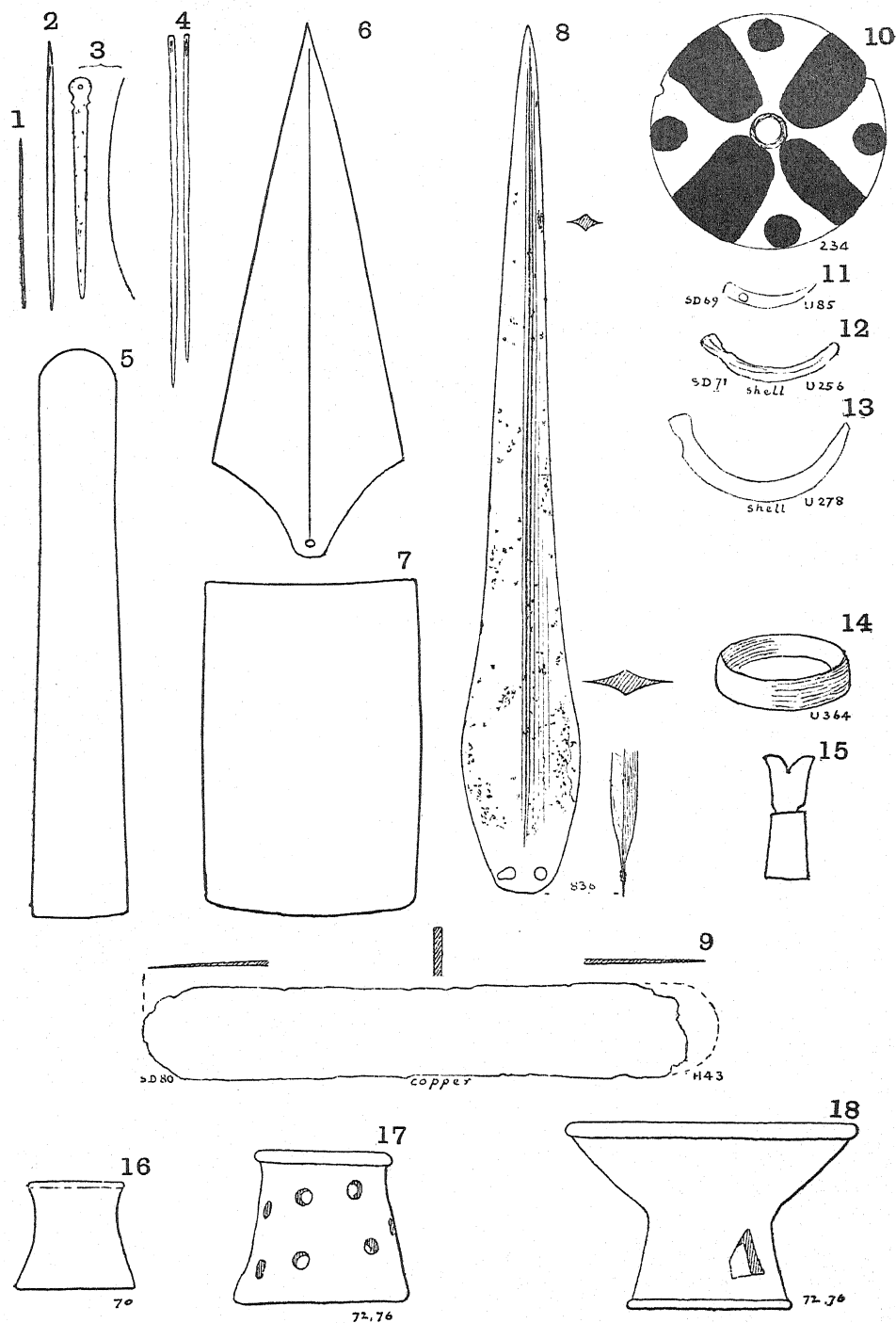
presumably due to the Aunu people (sect. 49). The only head that was found was quite flat on the front, and must have had a face of wood attached. On the smooth sides of the lumpy figures there were hammered outlines, bruising away the surface of the surrounding stone and so leaving a low relief. These are all drawn here from paper squeezes (*Koptos*, iii).

No. 88 has the head of a fallow deer with four tines on each horn; below it are two *Pteroceras* shells of the Red Sea.

No. 89 has two standards of Min, with an ostrich feather on the top, over a wreath of flowers. Below are two swords of swordfish, and two *Pteroceras* shells. In no. 90 the same subjects recur, but the swords are only outlined by graving with a flint.

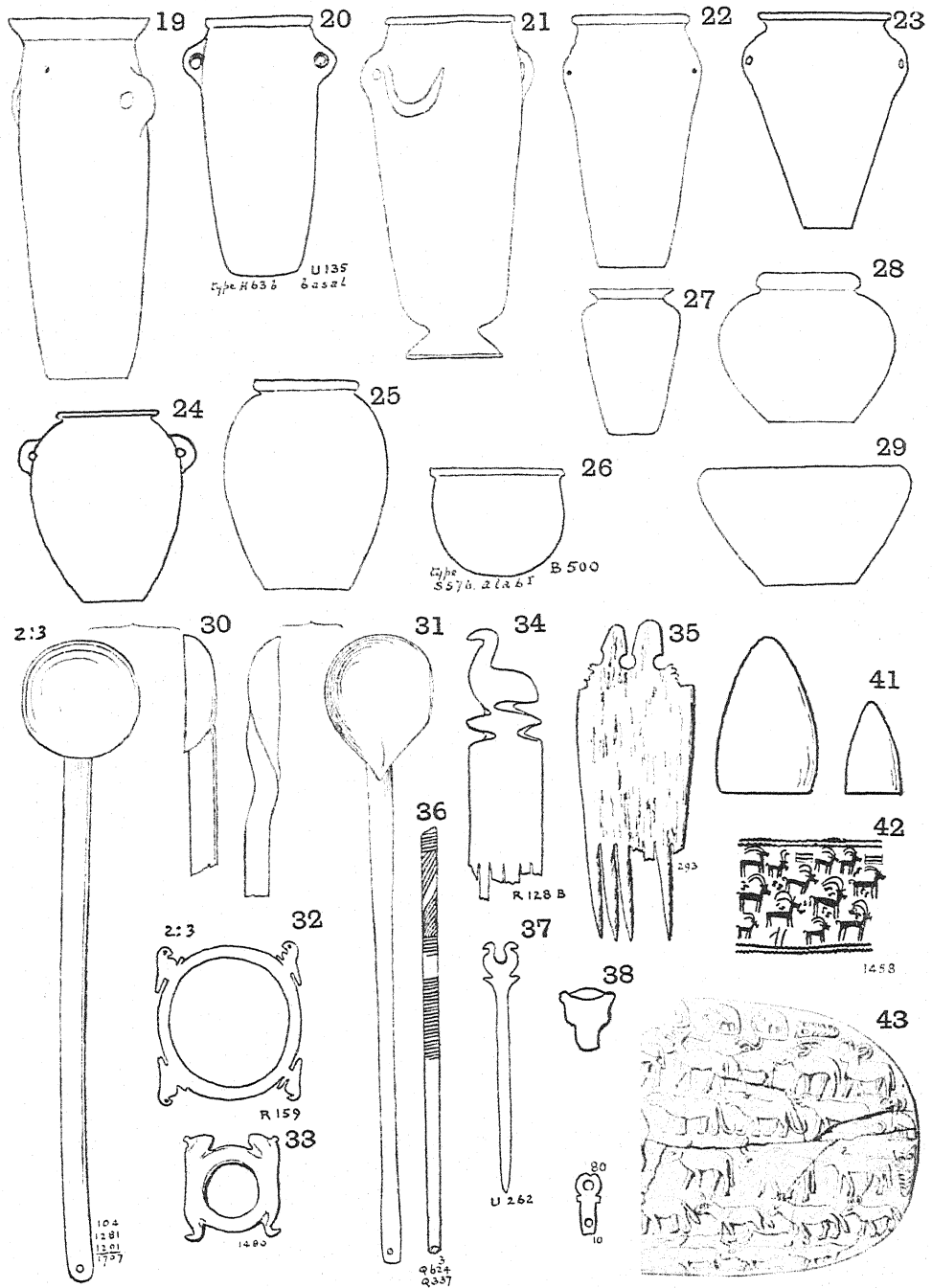
No. 91. Below is an elephant on hills and a bird (?) unfinished. Under these is a hyaena chasing a calf, both standing on hills. There are no similar sculptures known elsewhere; the animals are well designed, but the rough work shows it to be early, and these are probably the earliest statues of Egypt. Being of the god Min who belonged to the Aunu people, as we shall see further, it is to the Gerzean period before the dynastic that we may refer these figures. One is in Cairo Museum, and the others, being refused by the British Museum, are in Oxford.

PLATE XXIX



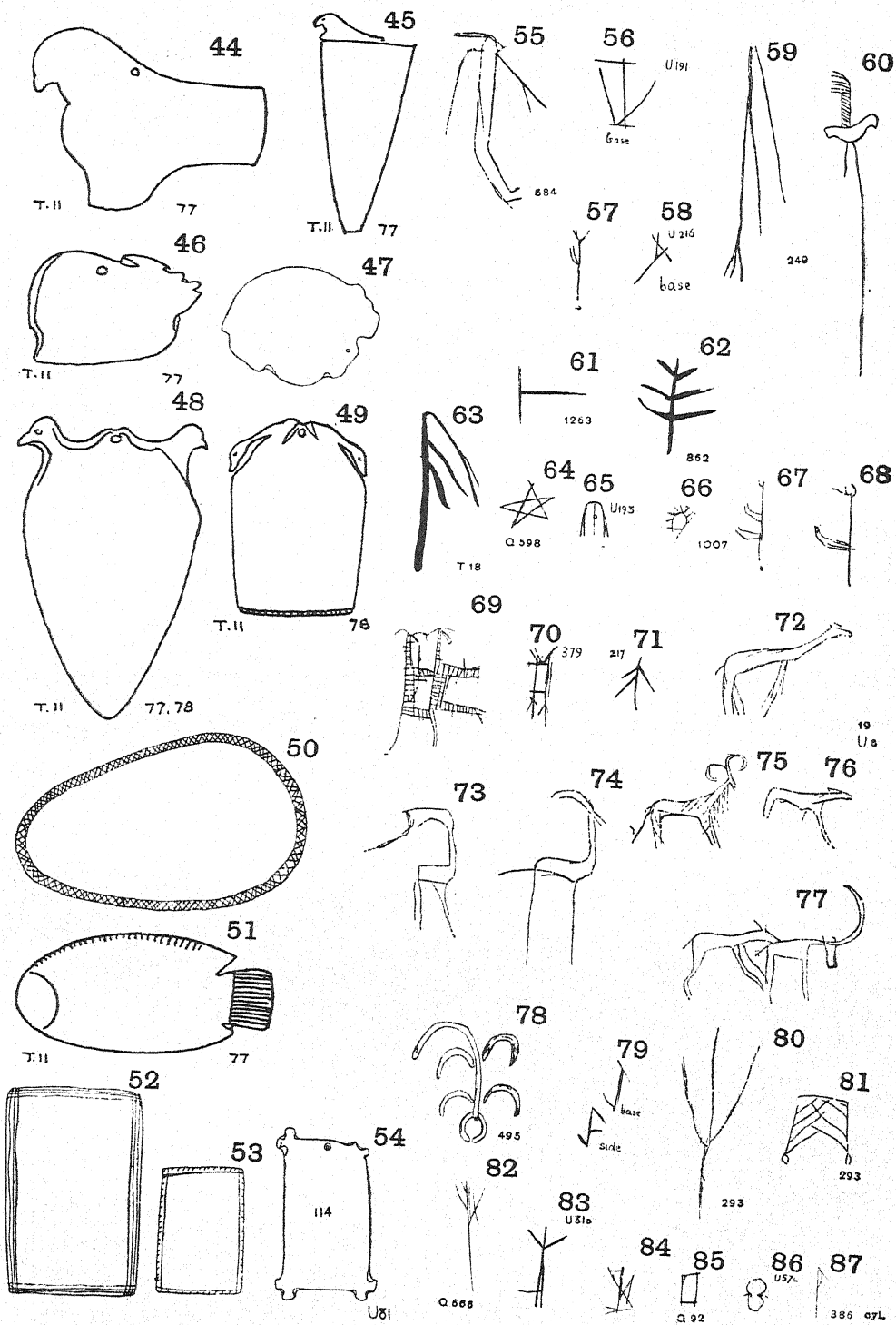
SEMAINEAN: COPPER, MACE, POTSTANDS, S.D. 61-80. (SCALE 1 : 2.)

PLATE XXX



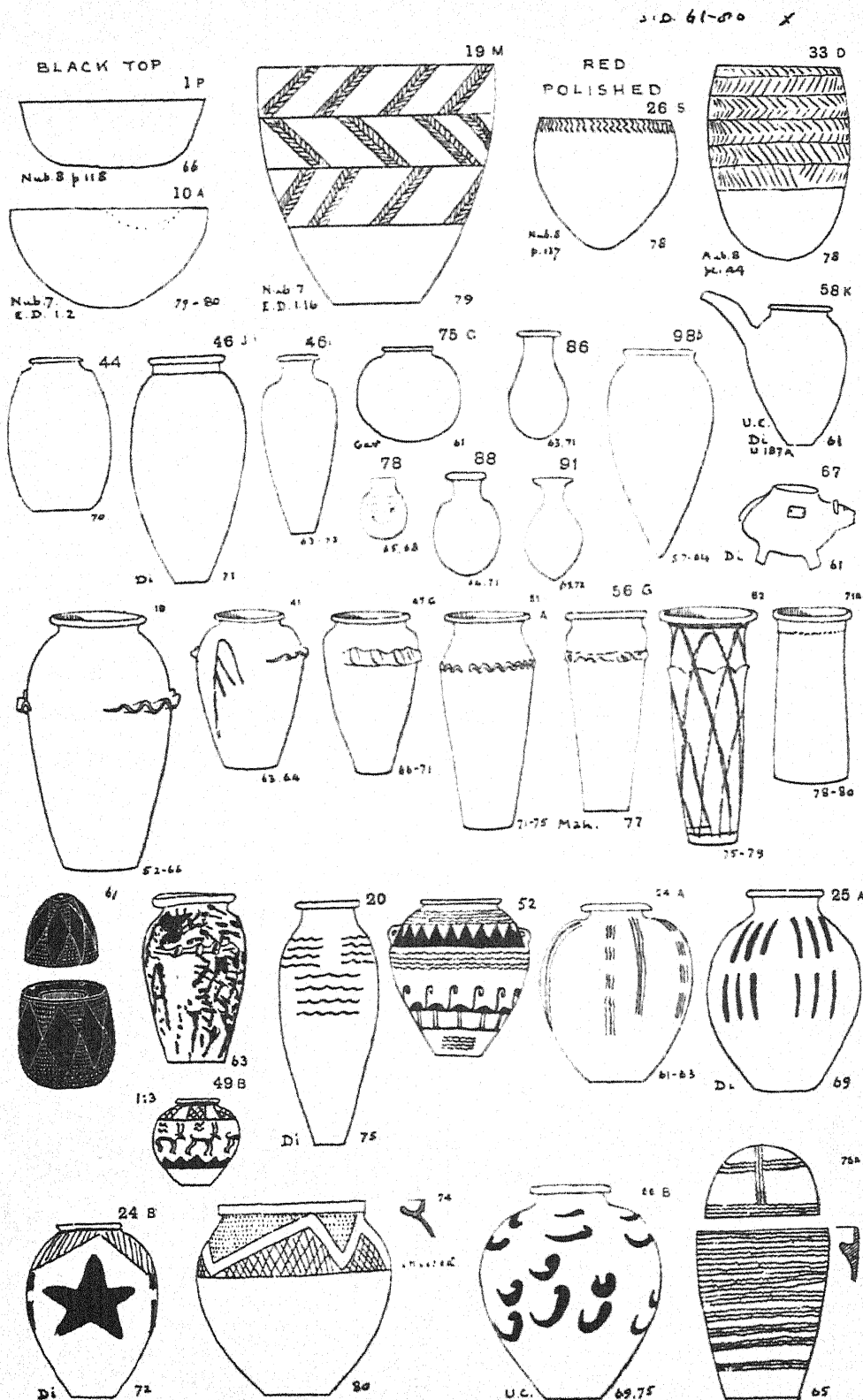
SEMAINEAN: STONE VASES, IVORY, S.D. 61-80. (SCALE 1 : 4.)

PLATE XXXI



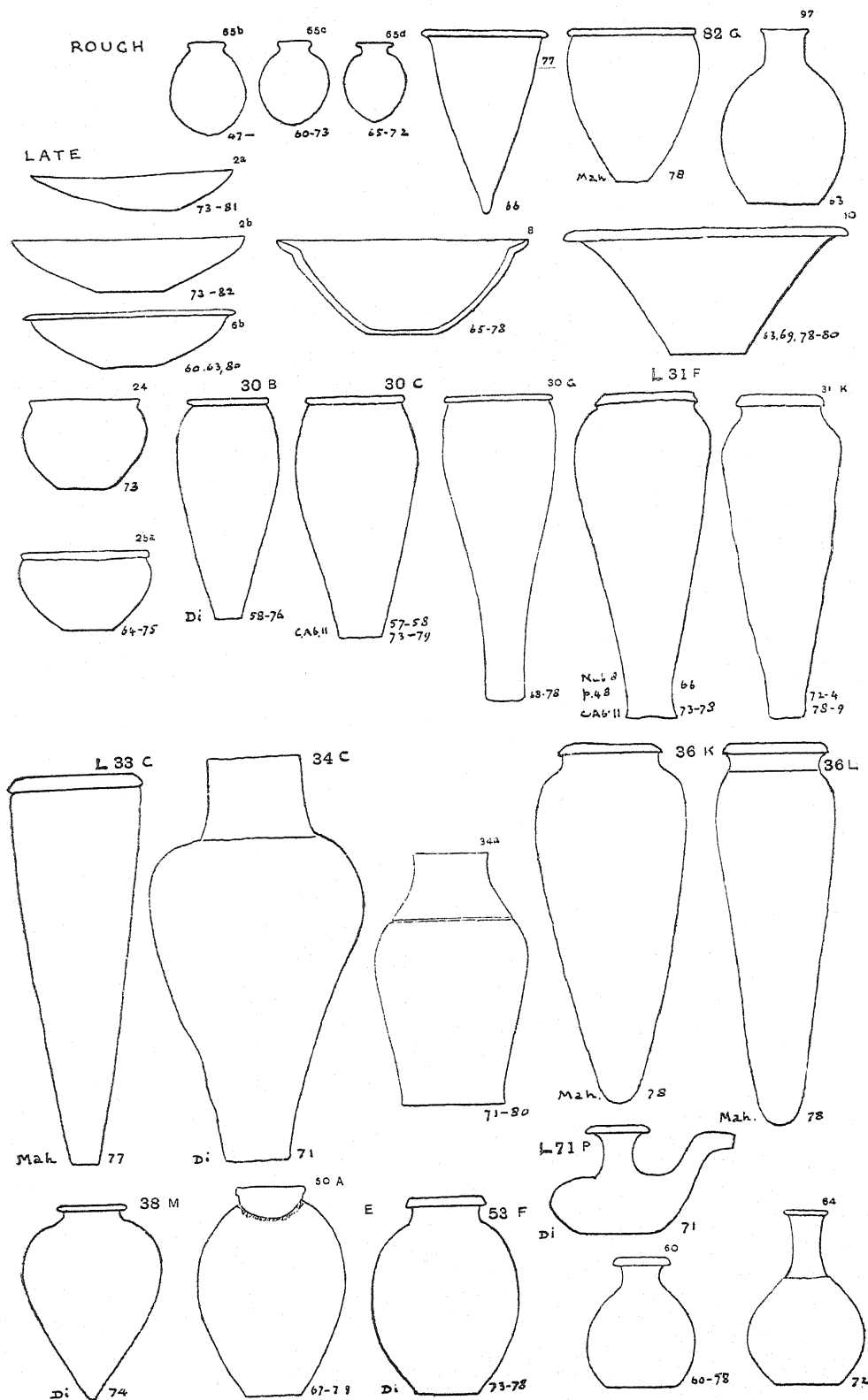
SEMAINEAN: PALETTES, MARKS, S.D. 61-80. (SCALE 1 : 6.)

PLATE XXXII



SEMINEAN: POTTERY, S.D. 61-80. (SCALE 1:9.)

PLATE XXXIII



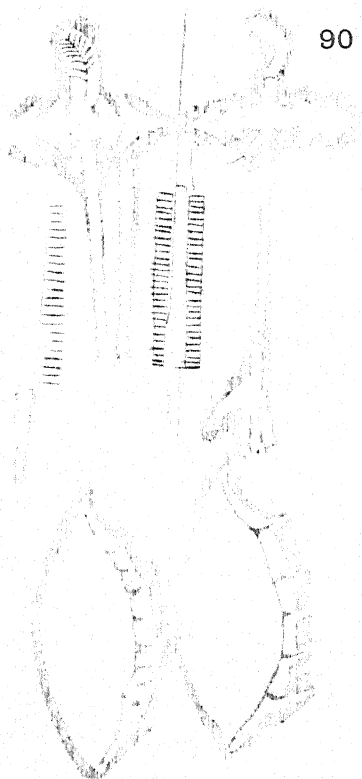
SEMAINEAN: POTTERY, ROUGH, LATE, S.D. 70-80. (SCALE 1 : 10.)

PLATE XXXIV

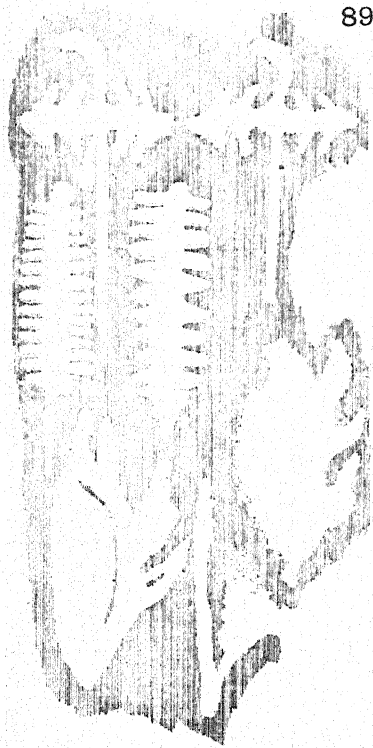
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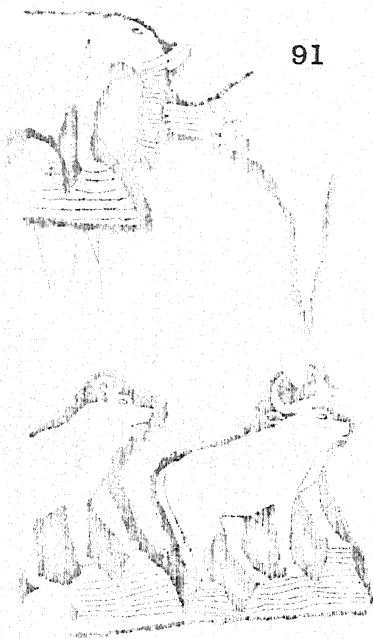
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GERZEAN: KOPTOS, RELIEFS ON MIN STATUES. (SCALE 1 : 5.)

CHAPTER VIII

THE DYNASTIC CONQUEST.

45. *Conflict of Races*.—We now have to view as a whole the tumultuous age of dynastic invasion. For some centuries we may see large movements going on, threats from the south and east, and influences from other quarters—one of the great ages of unrest and admixture like the ages of the XIII—XVIIth or XXIIIrd—XXVth dynasties. This troubled time occupied the Semainean age, probably five centuries, 4800-4300 B.C., covering the sequence dates 63-78.

For a demonstration of the invasion by the dynastic race, one of the greatest events in the history of Egypt, we turn to a single sculpture in ivory, the knife handle from Gebel el 'Araq (XXXV), probably presented to some great chief, in the same manner as we gave an inlaid decorated sword to a Nelson or a Wellington. The flint blade of the knife was a fine example of parallel flaking, a little after the finest age, perhaps about S.D. 60-65. The ivory handle is carved in relief on both sides. On the top line of the first side is shown a combat between short-haired men with bullet heads and long-haired men. The bullet heads, like the followers of Narmer (XL), are in all cases getting the better. Both parties are unclothed, but wear a waist cord to hold up a dagger sheath. The invaders only are armed, using a truncheon. In the lower scene are two lines of ships, and drowned men lying in the sea between them. The upper line is of vessels with high prow and stern, the lower has vessels with cabins like the Egyptian. This is to Egyptian history what the Bayeux tapestry is to English history, a national monument of conquest. Happily this is not the only representation of these opposing peoples, but they are shown also on the one painted tomb at Hierakonpolis; part of this is copied in pl. XXXV, 3. Here we recognise the ordinary Egyptian two-cabin ship (XXXVI, 2, 4) as used from S.D. 31 to 40, but having a lighter cabin on the top for the captain. The new form of ship is the black

one (copied XXXVI, 5) with a very high prow. On the ivory carving these two types appear, the Egyptian (XXXVI, 4) figured as no. 3, and the foreign (XXXVI, 5) figured as no. 6. There are also combats of black men overcoming red men.

46. *Source of the Conquerors*.—Adding to the history, there is on the other side of the knife handle a figure of a hero or divinity subduing two lions. Such a group is widely spread, anciently, with lions in Elam, Mesopotamia and Greece; tigers in the Harappa of India; winged bulls or horses in Assyria; ibex in Arabia and deer in Italy (*Decorative Patterns*, pl. I). A winged goddess is similarly holding lions, in Anatolia, Greece and Italy; wolves at Athens; swans in Greece. From these various animals we see that the idea is not the restraint of violence, but the assumption of power over all Nature however untamable. Such then is the purpose of this group, and the source of it is a cold country, for the hero has a thick coat and cap, and the lions have the thick hair under the whole body as a protection in snow. It must be from mountainous Elam and not from the plains of Mesopotamia that the figures come. The two beautiful figures of dogs belong to the Babylonian myth of Etana on the flying eagle, with two dogs looking up after it (Hayes Ward, 391-5). Below these are exquisitely spirited figures of animals, the connection of which we cannot realise in the broken condition.

Here is an historic monument of the highest value, but badly wrecked by the Government policy of seizing discoveries. In a free system of rewards, the tomb where this lay would have come under official care, all collateral objects would have been preserved, and every fragment of such an ivory could be recovered by sifting. But this object was never known officially till in the hands of a dealer.

47. *Hierakonpolis Wall-painting*.—Below the ivory is a portion of the figures on the Hierakonpolis tomb of S.D. 63. The comparison is clearer in the separate copies.

Pl. XXXVI, 1. The ship begins on the white-lined pottery, S.D. 31-33. At the bows hang the fender and tying-up rope; on the deck the branch to shade the look-out, and part of his chair; a large cabin with staves raised to hold top-hamper, and three punting poles lying on it; aft of that, two small square cabins. The oars have long

pointed blades. The usual Gerzean ship (2) of S.D. 44 has the branch in the prow, which later became a group of branches (S.D. 55). The oars are always plain lines. The later form (4) at S.D. 63 had an upper cabin, which appears in no. 3.

The ships on the ivory knife handle are distinguished by having an animal head at the prow, probably as a figurehead. These are the bull's head and the oryx head, and they possibly signify the names of the vessels. A late ostrakon at Thebes (XVIII-XIXth dynasties) gives two dozen names of cargo boats which would bear ensigns of *Khepesh*, *Uzat*, *Urs* and others (*Anc. Eg.*, 1915, 136). Below no. 4 is the black ship (5) at Hierakonpolis, belonging to the black men who are shown as conquering the red men; and no. 6 is the ship of these conquering invaders on the knife handle, with the similar high prow and round-topped cabin. The subjects of invasion and conquest carved on this knife handle, and depicted with such vigour on the tomb painting, have been taken first here, as they serve to clear away the distorted view of supposing all the history to have been a smooth uniform development of a single people. Even the earlier settlements of this and other lands were the result of the mixture of half a dozen races fighting for supremacy.

48. *The Medley of Invaders*. Pl. XXXVII.—We can now turn to look at the medley of types in this predynastic age. The principal types (XXXVII) are placed together. No. 1 is the usual prehistoric Egyptian, descended from the later Gerzean, XI, 18, 19, 20; it is a refined face with long straight nose, recalling the Libyan on monuments. This figure is of the latest predynastic type (*HR I*, v, vi). Related to this is the pointed face with feather head-dress (no. 2) representing a people who came from the east and bore the falcon standard. They were allied, therefore, with the dynastic folk, and also with the people represented similarly with pointed faces (nos. 3 and 4), who bore stone vases as tribute, and were probably from the eastern mountains or from the north. The alliance with the falcon tribe seems to give indications of a branch of that dynastic people pushing north up the Red Sea and entering Egypt not far from the Fayum.

No. 5 shows a curly-headed, bearded people, of whom nothing is known; they were conquered by the falcon tribe, and by people



with the spotted robe (no. 4), as represented on a slate palette (Brit. Mus.). The type is most like that of figures at Ivriz in the northern Taurus. No. 6 is the chief of the Fayum lake, a somewhat Bedawy version of no. 2. In nos. 7 and 8 are the types of dynastic race, king and follower, entirely different from all the others.

49. *The Aunu People*.—Besides these types, belonging to the north and east, there is the aboriginal race of the Anu, or Aunu, people (written with three pillars), who became a part of the historic inhabitants. The subject ramifies too doubtfully if we include all single-pillar names, but looking for the Aunu, written with the three pillars, we find that they occupied Southern Egypt and Nubia, and the name is also applied in Sinai and Libya.

As to the Southern Egyptians, we have the most essential document, a portrait of a chief, Tera-neter, roughly modelled in relief in green glazed faience (XXXVII, 9), found in the early temple at Abydos. Preceding his name, his address is given on this earliest of visiting cards, "Palace of the Aunu in Hemen city, Tera-neter." Hemen was the name of the god of Tuphium (Lanz., *Dict.*, 544), 13 miles south of Luqсор. Erment, opposite to it, was the place of Aunu of the south, Aunu Menti. The next place in the south is Aunti (Gebeleyn), and beyond that Aunyt-seni (Esneh).

The chief peculiarity of the figure is the droop of the chin; this is caused by a slanting jaw with short ramus. The same type of jaw is seen in the ivory king from Abydos, XXXVII, 10, and moreover in XXXVIII, 11, the Scorpion king who preceded Nar-mer.

These figures are, then, the precious portraits remaining of the native pre-Menite kings of the south, and they are of a type certainly different from the dynastic type of the square-jawed Nar-mer (Mena) and his followers (8).

The difference of the slope of jaw in the Aunu people was illustrated by our researches in the cemetery at Tarkhan. In dealing with the remains, the jaws were all photographed in position, and they show two groups of the slope of the lower edge as 20° and 28° to the horizontal (*TK* II, lx-lxiii).

Now we can go a step further. On the big mace-head of the Scorpion king, there are carved the standards figured in XXXVIII,

12 (from *HR*, xxvi, C). These bear the emblems of Min and Set, with *rekhyt* plovers hanging from them. The *rekhytu* people, however, were the special care of the dynastic race, protected by Aha and by Thetu. They were an organized rank ruled by a mayor in the Vth and VIth dynasties. The Scorpion king was, then, an enemy of the dynastic race (*Syro-Egypt*, 1), and belonged to the preceding race of the Aunu. Moreover, he worshipped Min and Set, the enemies of the dynastic falcon, Horus.

As we find the Aunu strong in the south, but the *rekhytu* strong in the north, it seems that the *rekhytu* came in with the dynastic invasion, entering the Nile valley at Koptos. Those who went south were attacked by the Aunu, and those going north founded a base at Heliopolis (*Syro-Egypt*, 2).

The heads on pl. XXXVIII are arranged to show the difference of type between the Aunu, no. 11; the dynastic people, nos. 13, 14; the 1st dynasty in Sinai, no. 15; the IIInd dynasty, Khosekhem, no. 16; the IIIrd dynasty, Sudany, Sanekht, no. 17, and Zezer, no. 18. The type of no. 17 was blended with the dynastic as in Seker-kha-bau (*Saqqara Mastabas* II, pl. I).

50. *Slate Carvings*. Pl. XXXIX.—No. 19, pre-dynastic slate palette with grinding pan, two serpo-leopards at the sides, licking their prey before swallowing it. No. 20, figures of the long-necked gazelle on each side of a young palm tree. No. 21, oxen, asses and goats in a country with olive trees, considered to be Libya.

51. *Predynastic Constitution*.—The constitution of predynastic Egypt can be gleaned from titles known in early times. The ruler of a large region was the *uo*, sole man, or monarch, as on the slate of Nar-mer (XL), taking captive the *uo* of the Fayum, and in dynasty IV there was a *uo* or great chief of the council. There was also a separate House of these Peers, with an office managed by an intendant in dynasty XII. These old territorial chieftains or dukes were essentially the royal court, as the highest honorary title was ducal-friend or companion, *se mer uati*.

Below these territorial chiefs, there was the class of nobles, *shepsu*, who were rich landowners, more often women than men, as women were always the holders of fixed property. The leadership of the *shepsu*

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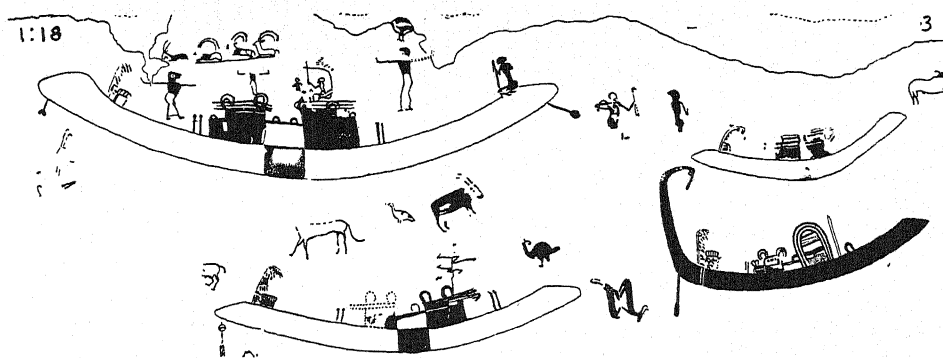
Below these territorial chiefs, there was the class of nobles, *shepsu*, who were rich landowners, more often women than men, as women were always the holders of fixed property. The leadership of the *shepsu*

was an annual elective office, and the highest position for a woman was that of the princess of the Shepsut, well known in the instance of Queen Hatshepsut of the XVIIIth dynasty.

We find a survival, down to modern times, of the "New Year king of all the nobles," a title of high honour in dynasty XII (*B.H.* I, xxxii). The Copts preserved the idea of this ruler of all the nobles (*shepsu*) at the new year, *nerūs*. The *abu nerūs* (XXXIX, 22) had become a mock king (like boy bishops) and was granted licence for three days, at the date harvest, to assume his dignity and demand tribute, but this assumption was unpardonable, so his dress was burnt off him at the end. The date harvest is the count of years in Iraq. The parallel is the Saturnalia where the under-dog people, kept as slaves, were dressed in their masters' clothes and waited on by their masters for three days. The allowance of the memory of former greatness is curiously alike in Egypt and Rome (*Anc. Eg.*, 1924, 115).

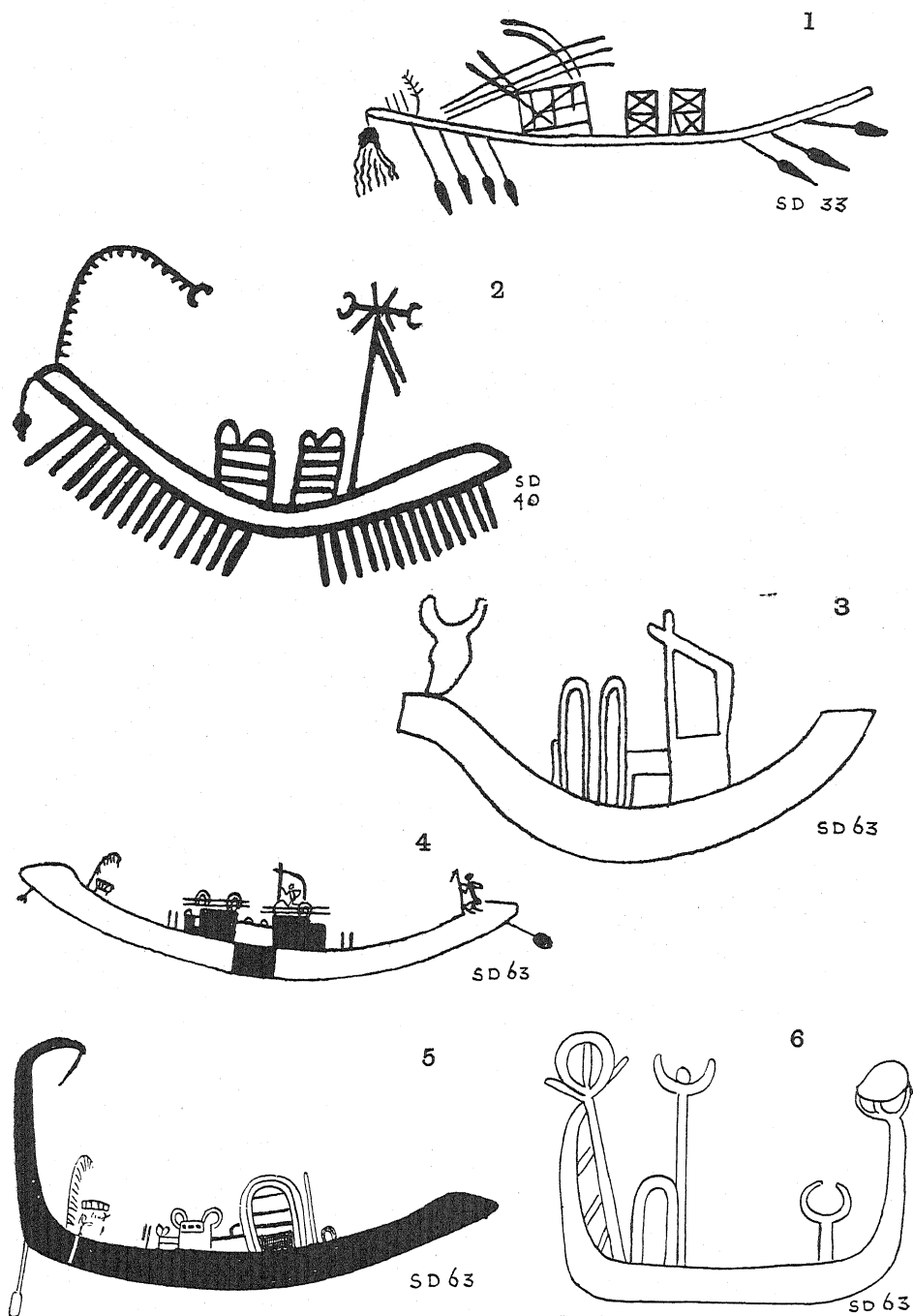
Below the nobles was the great bulk of the free farmers the *rekhytu*, who were the permanent backbone of Egyptian society from the 1st dynasty to the Greek times. They were the people *rekh* or "known" to each other, in contrast to the earlier races who were inimical (*Syro-Egypt*, 1). Their symbol was the plover, and indeed, in their first incoming, they alighted like a "congregation" of plovers taking possession of a feeding ground.

Thus we recover the view of the land being held by independent farmers or franklins, *rekhyt*, even down to Greek times; over these were nobles, *sheps*, who appointed a king annually, and over all were the territorial chieftains, *uo*, one of whom, *primus inter pares*, was the king. This prehistoric government of the dynastic people, who worshipped the falcon Horus, was antagonistic to that of the earlier Aunu people of the south, who worshipped Set and Min.



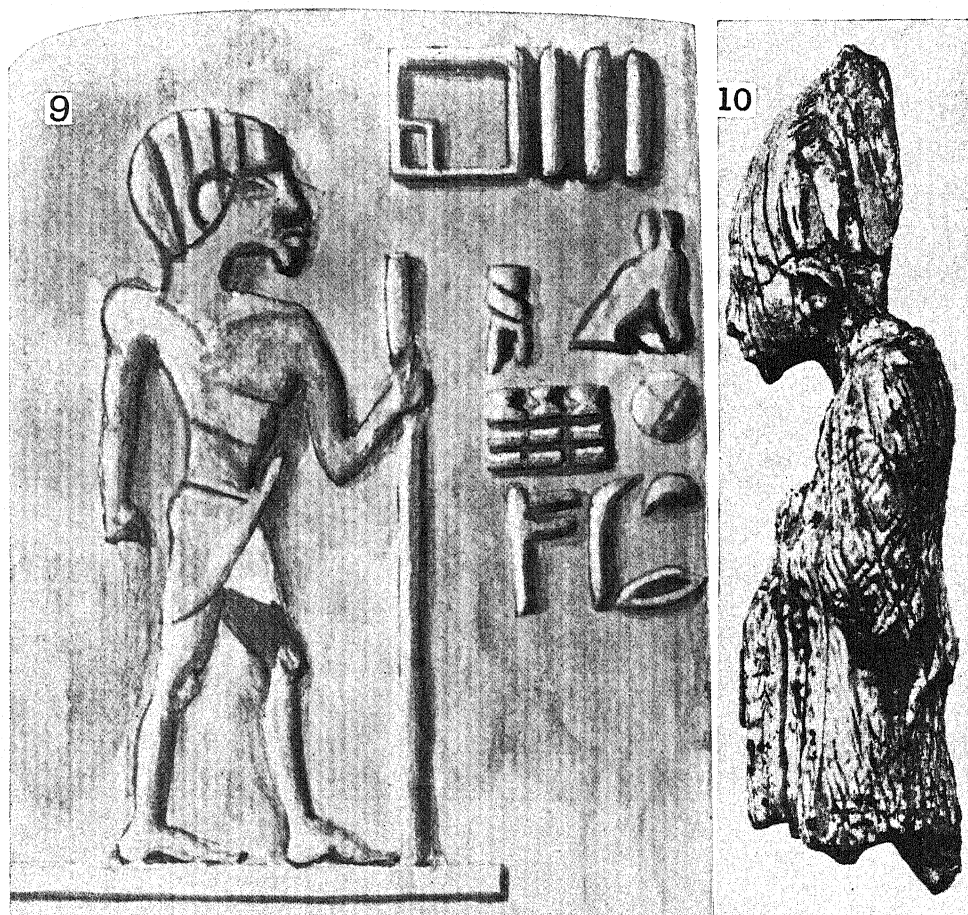
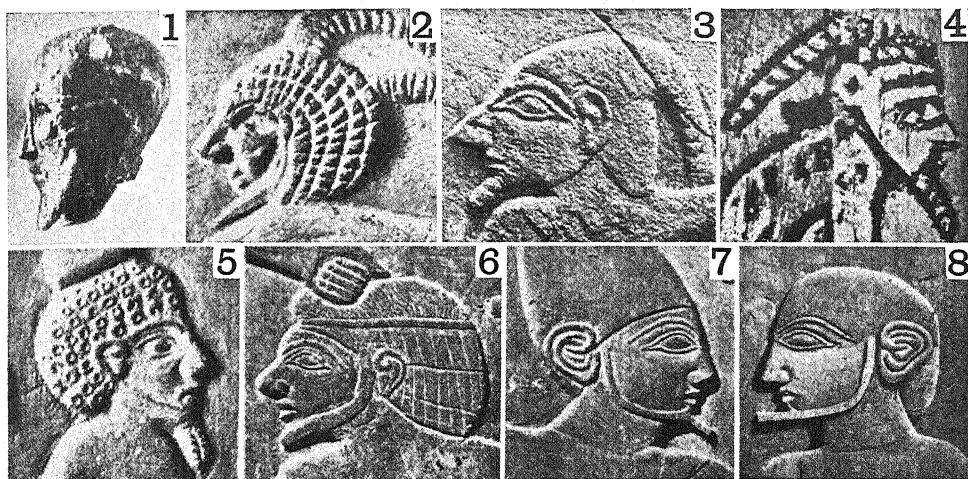
THE CONQUEST BY THE DYNASTIC PEOPLE, S.D. 65. (SCALE 4 : 3.)

PLATE XXXVI



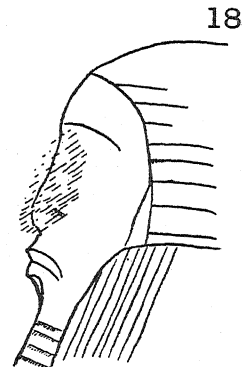
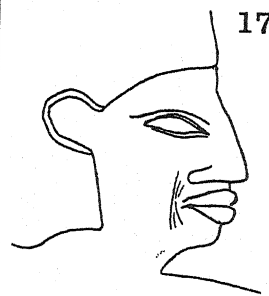
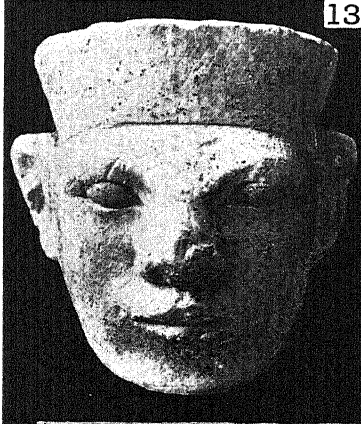
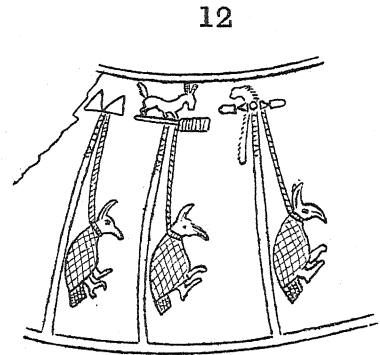
TYPES OF PREDYNASTIC SHIPS, S.D. 33-63. (SCALE 1 : 9.)

PLATE XXXVII



TYPES AT CONQUEST OF EGYPT, S.D. 70-77.

PLATE XXXVIII



THE AUNU AND DYNASTIC PEOPLES, S.D. 75, DYN. III.

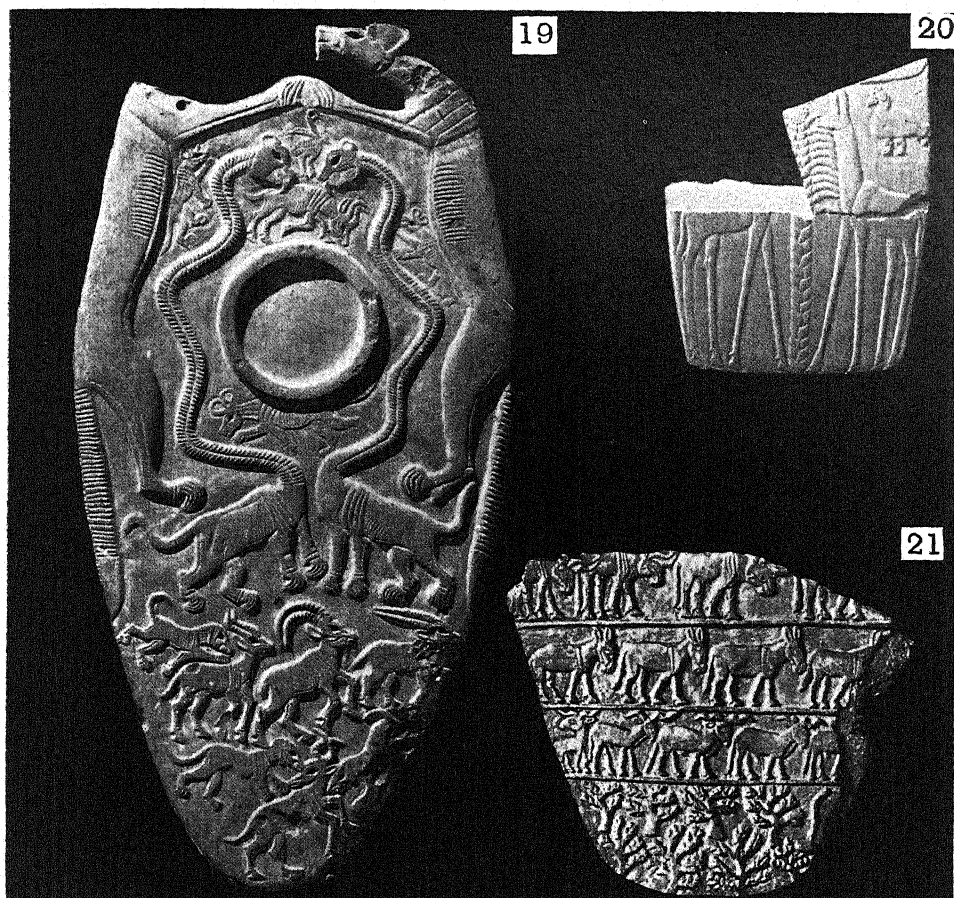
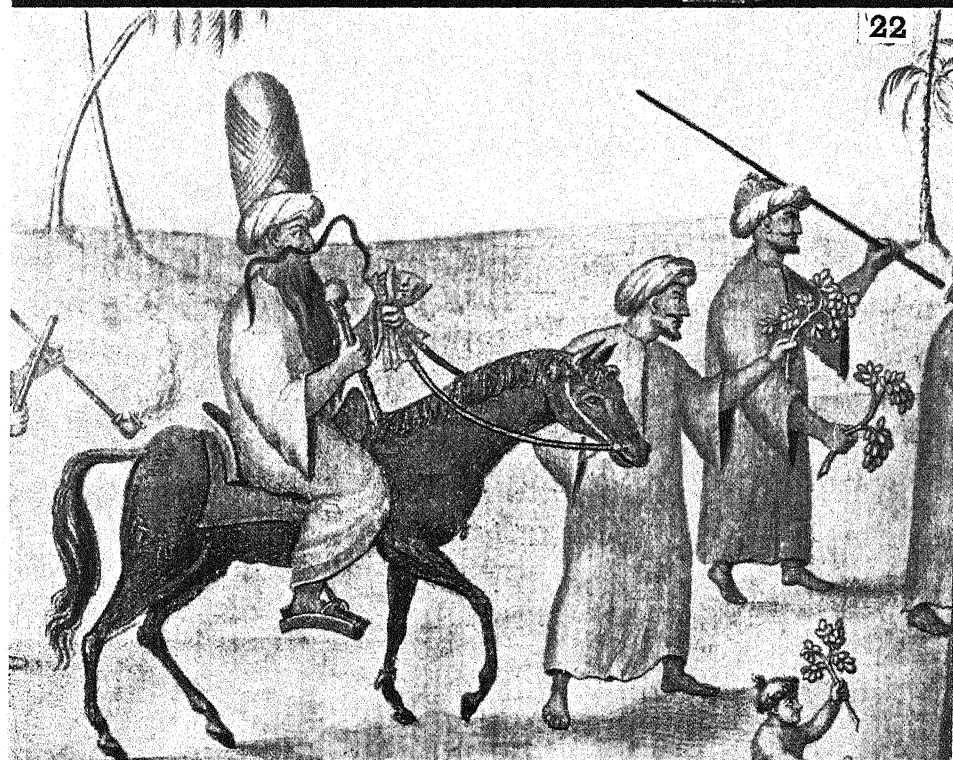


PLATE
XXXIX



SLATE PALETTES. NEW YEAR KING OF THE NOBLES

CHAPTER IX

THE DYNASTIC PEOPLE

52. *Predynastic Kings*.—It must not be supposed that there were no kings before the 1st dynasty. The early Annals recorded at least some ninety names of kings, partly of Upper Egypt, partly of Lower Egypt. These would probably fill the whole Semainean period since the conquest. Besides the names on the fragment of this list, there are also names inscribed on objects just before the 1st dynasty; so altogether there are seventeen names known, but we are unable for the present to say anything further about them.

Some of the most obvious public works of the 1st dynasty were the carrying on of earlier undertakings. The great historical maces, and the irrigation works, had been developed under the Scorpion king of the Aunu, and both may have originated much earlier. Many vases and bowls (*HR*, xii, xvii, xix, xxxiv) bear his name.

53. *Origins in Elam and Punt*.—The distinctive character of the 1st dynasty, which separates it from all that went before, is the conquest and union of the whole land of Egypt. It became thus subject to the falcon-bearing tribe of Horus, which was the natural enemy of the Aunu, the Set-bearing tribe. This falcon tribe had certainly originated in Elam, as indicated by the hero and lions on the 'Araq knife handle, XXXV. They went down the Persian Gulf and settled in the "horn of Africa." There they named the "Land of Punt," sacred to later Egyptians as the source of the race. The Pūn people founded the island fortress of Ha-fun (pl. LXIII), which commands the whole of that coast, and hence came the Punic or Phœnic peoples of classical history. Those who went up the Red Sea formed the dynastic invaders of Egypt, entering by the Qoceir-Koptos road. Others went on to Syria and founded Tyre, Sidon and Aradus, named after their home islands in the Persian Gulf (Strabo, XVI, iii, 4). This migration formed the basis of the great spread of Puni, by the colonies

of Carthage around the Mediterranean, and into the Atlantic on both north and south.

54. *Nar-mer Palette*.—The principal monument of the first king Nar-mer (Mena) is the large slate palette (XL). This shows his capture of the "chief of the lake" (*uo she*), and the falcon holding 6,000 prisoners. Behind him is his body-servant carrying the sandals and a water-pot; he is named the "king's servant," the rosette here, and elsewhere, being used for the king. The resemblance of the king on this palette to the sculptor's trial piece, or model, XXXVIII, 13, 14, shows that almost certainly to be the royal portrait. It was never part of a statue, being flat on the back and top; it seems to be a life-study as a model for future figures. It is accepted as the oldest portrait figure, by Michaelis, who notes the "astonishing acuteness of the racial type."

The heads of Hathor on the top of the palette and around the belt of the king show that she was the protective deity of the tribe. This accounts for the spread of her worship over the whole of Egypt, not only localised as other tribal deities.

55. *Art of Nar-mer*. Pl. XLI.—Three examples of the wooden cylinders commonly used for sealing on clay caps to jars (*Tombs of Courtiers*, ii, iii).

Part of ivory wand with procession of animals (*HR I*, xvi).

Lion and lioness made for gaming-pieces; two players each used one animal, as seen in the game in *Hesy*, liii. These are some of the best carvings of animals.

Piece of a green glazed globular vase, with the name of Aha (second king of dynasty I) inlaid with brown glaze. This is the earliest piece of polychrome glaze work.

Pl. XLII. One small label (1) has a figure of a tower with ladder access. It is definitely explained by a model (2) of a tower with ladder (Berlin Mus.).

56. *Conquest by Nar-mer*.—The main figure-subject of Nar-mer (no. 3) is on a carved mace-head (*HR*, xxvi B). This was an occasion of a triumph or a census, when 400,000 oxen, 1,422,000 goats, and 120,000 men were taken. The king sits in a shrine in the garb of the *sed-heb* festival, with two fan-bearers in attendance. The heiress (?)

THE DYNASTIC PEOPLE

is seated in a palanquin, and behind her are three men dancing in an enclosure of hangings. Above are the four standards of the army (?). The meaning which seems the more reasonable is that the *sed-heb*, or "festival of ending," celebrated the king's duration of reign, which might be renewed (like the Roman periods of rule, VOT. X. MULT. XX), but at the end of the first period the heiress must be married to a successor of the king, to provide continuation of the State.

DATES OF DYNASTIES I-VI, ACCORDING TO EGYPTIAN RECORDS

I	-	-	-	4320-4078
II	-	-	-	4078-3838
III	-	-	-	3838-3747
IV	-	-	-	3747-3510
V	-	-	-	3510-3330
VI	-	-	-	3330-3127

CHAPTER X

DEVELOPMENT IN FIRST DYNASTY

57. *Aha Tablet*.—The most complete inscription of the successor of Mena, named Aha-Teta, is the ebony tablet (XLII, 4). Next to the name is the "birth of Anpu": then the double boat of Harakhti (*Temple of Kings*, v), and a shrine of Neit. Below is the king making a second offering of a bowl of *zom* (electrum); then the netting of wild cattle, and a shrine of Tehuti. Below again, boats on canals going to two towns, probably Hermopolis and the Fayum. At the bottom the name of a mayor (?), leader of the city. This tablet, naming events of the year, was tied on to some offering, perhaps the electrum bowl itself.

58. *Burial and Offerings. Caucasus Names*. Pl. XLIII, 1.—An early tomb of the 1st dynasty; the burial has been bared, but the offering jars lie stacked at the front, as they were left by the offerers. As any vessel used for offering was consecrated, it could not be used again, and this observance was kept up throughout the dynastic, and extended to the Roman age (*TC*, 16). No. 2.—Another tomb has been emptied by me and the pottery placed on the earth filling. The little square court for offering has two slits in the back wall, for the passage of the scent of the offerings. The jars already used were stacked outside the court. In other instances, as at Denderah, there were still

weathered remains of offering-jars lying on the top of mastabas over the tombs of the VIIth dynasty.

In connection with the burials of the Egyptians, we must look at their view of the future life. The earliest documents bearing on it are the spells in the Book of the Dead. On extracting all the names of places mentioned in it, which are usually called mythological, it is seen that they conform closely to the actual names and geography of the Caucasus. The Iaru river is stated to be the most fruitful place, but to have a lake of fire in it. The Iora in the Caucasus exactly agrees with this. The capital of Osiris is Akret, and the Greek name of the capital is Ekretike. Bakhu, the mountain of the east, is the present Baku. Place after place on the map, pl. V, exactly agrees in name and position (*Anc. Eg.*, 1926, 41). We find subsequent invasions from the Caucasus in the VIIth and XVth dynasties, and we can no longer doubt this connection.

At what point this mythology entered into Egyptian thought is not known. It cannot be before the use of corn in Egypt, brought there by Osiris, who converted the Egyptians from cannibalism. It might, however, be connected with a later movement somewhere before dynasty I—Badarian, Gerzean, or Semainean, all Asiatic.

59. *Cylinder Seals and Writing*.—We now enter on the history of the writing. In addition to simple linear signs used for marking the ownership of pottery during prehistoric times (VII, XIII, XVIII, XXV, XXXI), various pictographs were started by the dynastic people. There are about forty in all, engraved on cylinders, and seventeen more preserved the names of pre-Menite kings. Of these signs, less than sixty, it is quite as probable that they had their origin in some other country than that they started in Egypt. There is nothing distinctive of Egypt in the animals represented—the lion, jackal, calf, sheep, hare, the owl, falcon, and crested ibis, the serpent, scorpion, and slug. The crested ibis (*I. comata*) is now in Arabia and Abyssinia, and it may have been driven south out of Egypt, like the giraffe and ostrich. The made signs, such as plough (derived from hoe), sickle, game board, and three vases in a stand, are also general. Thus there is nothing to prove whether such writing originated in Egypt or elsewhere. But, as this system grew rapidly under the 1st dynasty, it

looks as if it originated with the dynastic Elamites. Before writing, there appears the cylinder seal in S.D. 46, an ignorant imitation (XXV, 65 A) of an Asiatic cylinder. The first with distinct hieroglyphs is XLIII, 3, between S.D. 65 and 76, of ivory. Here three signs were repeated, without being intelligible to us: it seems to be a mumbling of signs which had some meaning. Then, from this point until we reach obviously regular inscriptions, there is a great mass of phrases used with growing regularity. Even in large inscriptions of dynasties II and III, the signs are jumbled in various order, for it was considered that as long as they were there, the magic virtue was assured. The mass of over 170 published cylinders is despised by the grammarian as being senseless, because he cannot see any regular system; but assuredly the beginning and growth of writing is there, though not yet reduced to rule. Tentative renderings of many of them have been proposed, but the whole subject is waiting for a study of the development of writing. Meanwhile, two are quoted here, nos. 5 and 6, as examples of the more intelligible inscriptions. These are the two main classes, one with seated *ka* (5) and one with glorified *aakhu* or soul (6). The *ka* figure, of which there are sixty-six examples, is seated before a table of offerings, with hand stretched out to accept them, as in no. 5. This is a usual motive of the steles of Memphis and Lower Egypt. No. 6, the glorified figure is typified by the crested ibis (*I. comata*) meaning spirit, seen embraced by the arms. This belongs rather to the south and the consequent blessings of the "sweet wind of the north," as desired occasionally in the inscriptions upon shabtis, thousands of years later. The *sehez*, "glorified" or "made bright," was a term applied to the dead in the XVIIIth dynasty and onward, originating in the Thebaid. The cylinders of the first-named class, placed with the dead, are the forerunners of the funeral stele, assuring the dead of the funeral offerings, which are shown on the cylinders as being accepted by the dead. No. 5 may be rendered "of Neit, the house of the *ka*, over plans, As." The surveyor As was evidently estate agent of the temple lands, superintending survey. No. 6, "of Athet, carver, Tepa." Athet was fourth king of dynasty I, and the carver is denoted by a flint knife and an ox tongue. The most primitive cylinders have cries for "food, food," but in the majority of the later

ones the union with the gods is desired. No. 4 has an advanced writing of a charm: "Thou art guarded and preserved for ever."

Titles of officials are indicated in no. 7, the earliest royal seal, of king Ka; no. 8, the "controller of the inundation" under king Den; and no. 9, wine of the "presses of the eastern and northern nomes of king Den."

60. *Linear Signs*.—In addition to this growth of pictographs, there was also a whole class of linear signs (no. 10) which are not degraded pictographs, for the signs are the earlier. These are the foundation of the Mediterranean signary, which long survived in Spain and Caria. From about half of these the alphabetic signs of the Mediterranean were a selection; the order of the alphabet was fixed when they were used as numerals in North Syria, and hence they were called the Phoenician alphabet. Consecutive writing with these signs is seen in no. 11, of the XIIth dynasty, which has been read "Ahitub," and no. 12, of the XVIII-XIXth dynasties, perhaps recording "the lord of both lands is (*tegif*) mighty." See *Formation of Alphabet*, and, for the growth of the later Greek forms before 1500 B.C., see Evans, *Palace of Minos III*, 406.

61. *Growth of Hieroglyphic Writing*. Pl. XLIV.—The royal series of sealings begins with a king simply named Ka on a cylinder seal, XLIII, 7, and on jars (*Abydos I*, 1, ii). The earliest historic sealings are of Nar-mer, and they show curious variability. No. 1 reads Nar. mer. za, no. 2 is Nar. mer. benr, but usually plain Nar. mer, as in no. 3. This is the variable form, then, of a name in inscriptions before dynasty IV.

No. 4 is a seal of the Fayum, with crocodiles amid curly waves.

No. 5 is the single sign *zet*, the fourth king of dyn. I, with no. 6 the personal name Ata.

No. 7 is the first sealing with the *nesut bati* name, "Az ab. *nesut bati* Mer. pa. ba."

No. 8. The name of Kho-sekhemui (dyn. II), "the glory of the double sceptres" of Horus and Set.

No. 9. Five years' entries of the Annals of Kho-sekhemui, recording the making of a copper statue of the king in the 15th year. At the end there is stated the 2 months, 23 days of the next year, to the close of the reign.

THE MAKING OF EGYPT

No. 10. Two years' entries of the 13th, 14th years of Sneferu. A record of building sixty ships of 16 fathoms long; of capturing 7,000 negroes and 200,000 cattle, and making forty ships of cedar wood. Next year, "Building thirty-five hunting lodges and 122 cattle tanks, making two ships of 100 cubits." Such were the activities at the close of the IIIrd dynasty.

No. 11. The frequent wars are graphically illustrated by scenes incised on the base of a statue of Kho-sekhem of dyn. II. The corpses are represented strewn in contorted attitudes, and recorded as 47,209 slain.

Nos. 12, 13. The earliest contemporary scarabs are of Neb. ka or Ra. neb. ka, the predecessor of Zeser, whose pyramid was begun at Zowyet el Aryan.

62. *Jewellery*. Pl. XLV.—Jewellery from the arm of the queen of Zer, mid dyn. I, found hidden in a hole in the brick wall of the tomb. The top bracelet is of alternate plaques of turquoise with squat falcon (as under Aha), and of gold with tall falcon (as under Zer). The turquoise had belonged to an earlier bracelet spaced with ball beads between. The bases of the plaques were marked with their numbering as they bear lines, half square to the side, half sloping. From these we learn that five gold had been lost, as well as four turquoise before their rethreading, so that the original length was a third more than at present. The plaques are each panelled as a wall pattern, representing the palace front, with the resident king symbolized by a falcon on the top. The design was popular, for it was imitated in green glaze as in the bottom row, from Hierakonpolis. A stray example of another plaque of lazuli is in *R. T.* II, xxxv, 81.

The second bracelet is in three sections; each has, in the middle, three beads of dark purple lazuli, carved with a spiral copied from the gold beads. The spiral beads at the side are of gold wire, hammered so as to taper at each end. The gold is very soft and pure, as inelastic as wax. The gold beads are all wrought hollow. The lesser beads are turquoise.

The third bracelet has long beads of hour-glass form, with a groove round the middle by which to thread them. They are of amethyst with gold on each side. Between the groups are rhombic turquoise beads capped with gold.

DEVELOPMENT IN FIRST DYNASTY

The fourth bracelet has a large gold bead, of the centre of the lotus flower, flanked by turquoise beads and gold ball beads, with a second centre of turquoise beads, both groups flanked by large deep amethyst ball beads. These bracelets give an idea of the variety of design, the delicacy of work, and technical ability of artists and craftsmen early in the 1st dynasty. Below is similar work in glazed pottery, from Gizeh.

63. *Examples of the Arts.* Pl. XLVI.—Nos. 1-3, lance and spear-heads of copper. No. 4, ivory bull's-leg from a box. No. 5, tray for sandals. No. 6, bowl of a square ivory spoon, with carving of animals. No. 7, great jar of Nar-mer, a type which degraded regularly to the end of dyn. II. No. 8, plan of house timbers, showing holes pierced for lashing the timbers together. The purpose was to have a dwelling which could be easily removed and re-erected according to the inundation. The joints, being all sliding-face contacts, could be made good by the tight lashing irrespective of contraction by heat. This form of dwelling was the origin of the panelled pattern of brickwork; the design being also Mesopotamian, it probably originated there. Nos. 9 and 10, flint flakes as scrapers. No. 9 was found in tomb of Zer, no. 10 in tomb of Den.

Pl. XLVII. Early dyn. I. No. 1, alabaster table. No. 2, flint armlets. No. 3, flint arrow-heads of Mena. No. 4, flint arrow-heads of Zer, two with chisel ends to cut through hide, and a breaking joint where a point might be renewed. One rod of wood with flint point inserted at side, probably for pricking tatu pattern. No. 5, bed frame with horizontal slots in inner side for webbing, passing out below. No. 7, webbing worked around the pole. No. 6, matting of zig-zag pattern, for tying loose over the webbing. No. 8, alabaster box carved as a beetle, to hold a scarab beetle. This proves the veneration of the scarab very early, before any inscribed scarabs of dyn. III.

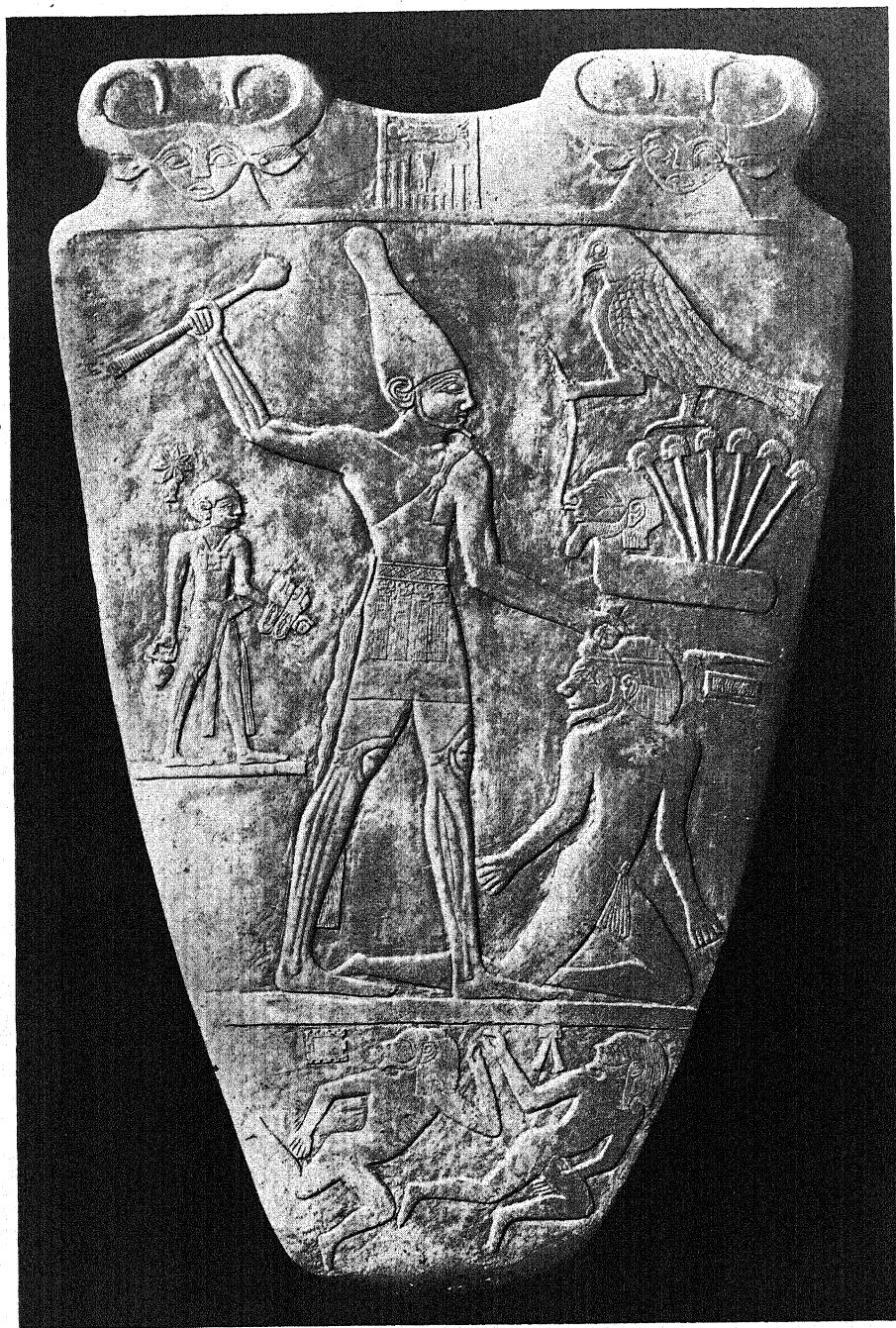
Pl. XLVIII. Middle of dyn. I. Nos. 1, 2, two flint knives, Gizeh, reign of Zet. No. 3, ivory dancing wand, same place. Nos. 4, 5, two flint knives, Abydos, reign of Zer (*T.C.*). No. 6, painted pottery of mid. dyn. I, from a foreign source.

64. *Foreign Pottery.* Pl. XLIX.—No. 1, large jar of fat black pottery, exactly like a late neolithic jar found at Knossos in earliest city (*A. II*, xii). No. 2, fluted cylinder jar of hard tinkling red pottery;

THE MAKING OF EGYPT

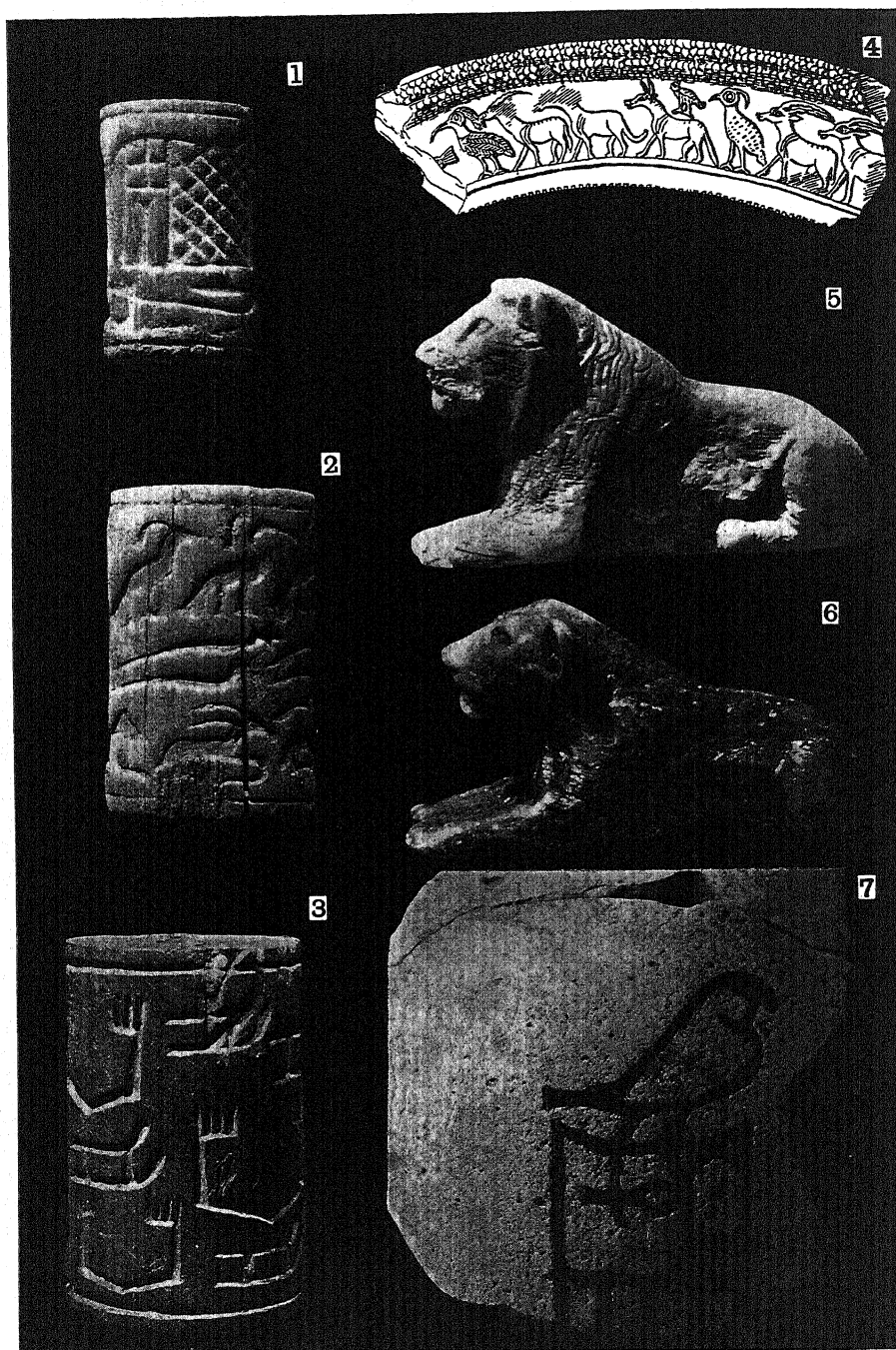
Abydos, by square of Zer, but may be later. No. 3, vase of Ist dyn. with loop and side handle. No. 4, vase with two handles, rather suggestive of Palestinian origin, from cemetery of Zet. Nos. 5 and 6, glazed pottery cups (*TK* II, v). Nos. 7 and 8, red painted pottery (*TK* II, ix). Nos. 9-15, painted pottery, foreign (*R.T.* II, liv), from tomb of Semer-khet. Nos. 16, 18, cubic seals of dyn. IV, for comparison with nos. 17 and 19, rock-cut figures in Sahara. Nos. 20 and 22, seals with lizards, to be compared with nos. 21 and 23, rock-cut figures.

These seals show the presence of an under-dog people during the Old Kingdom in Egypt, akin to the people of North African rock carvings. They would seem to have pushed in with Libyan invaders late in the predynastic age.



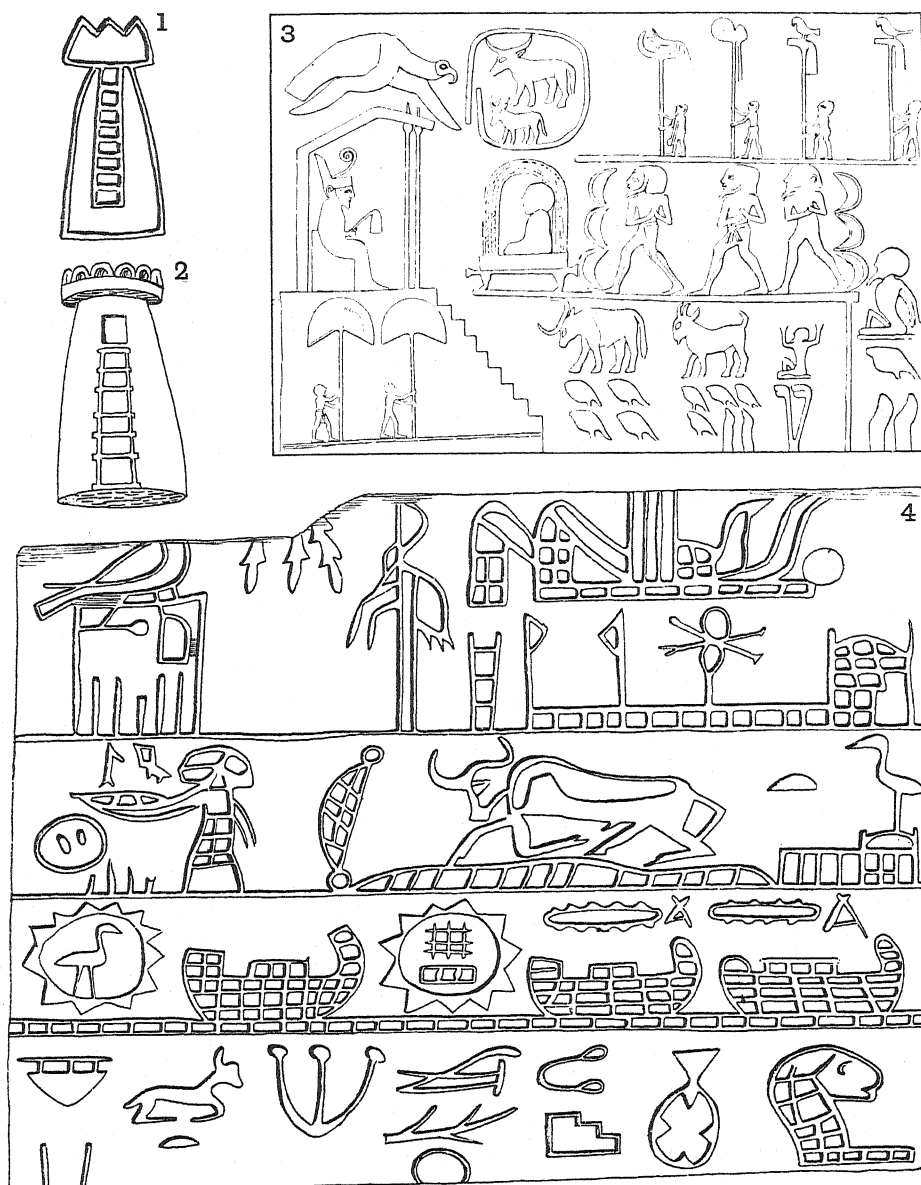
PALETTE, NAR-MER AND FAYUM CHIEF. (SCALE 4 : 15.)

PLATE XLI



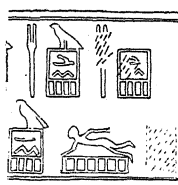
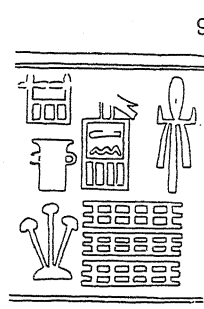
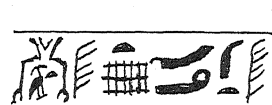
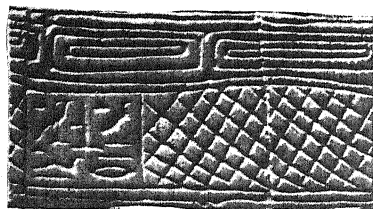
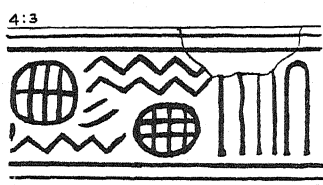
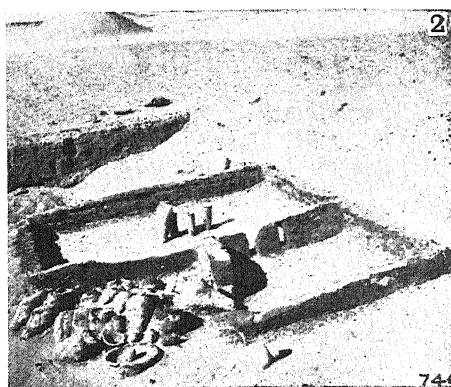
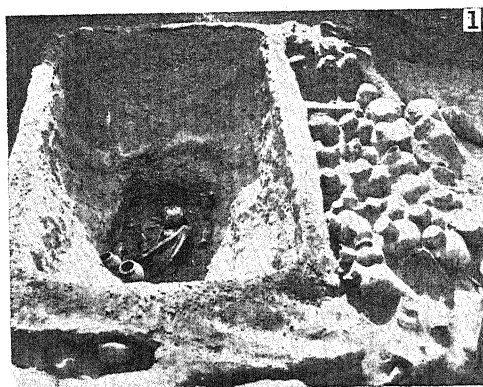
WOOD CYLINDERS, IVORY LIONS, GLAZE, DYN. I. (SCALE 1 : 1.)

PLATE XLII



SCENES OF NAR-MER AND AHA, DYN. I.

PLATE XLIII



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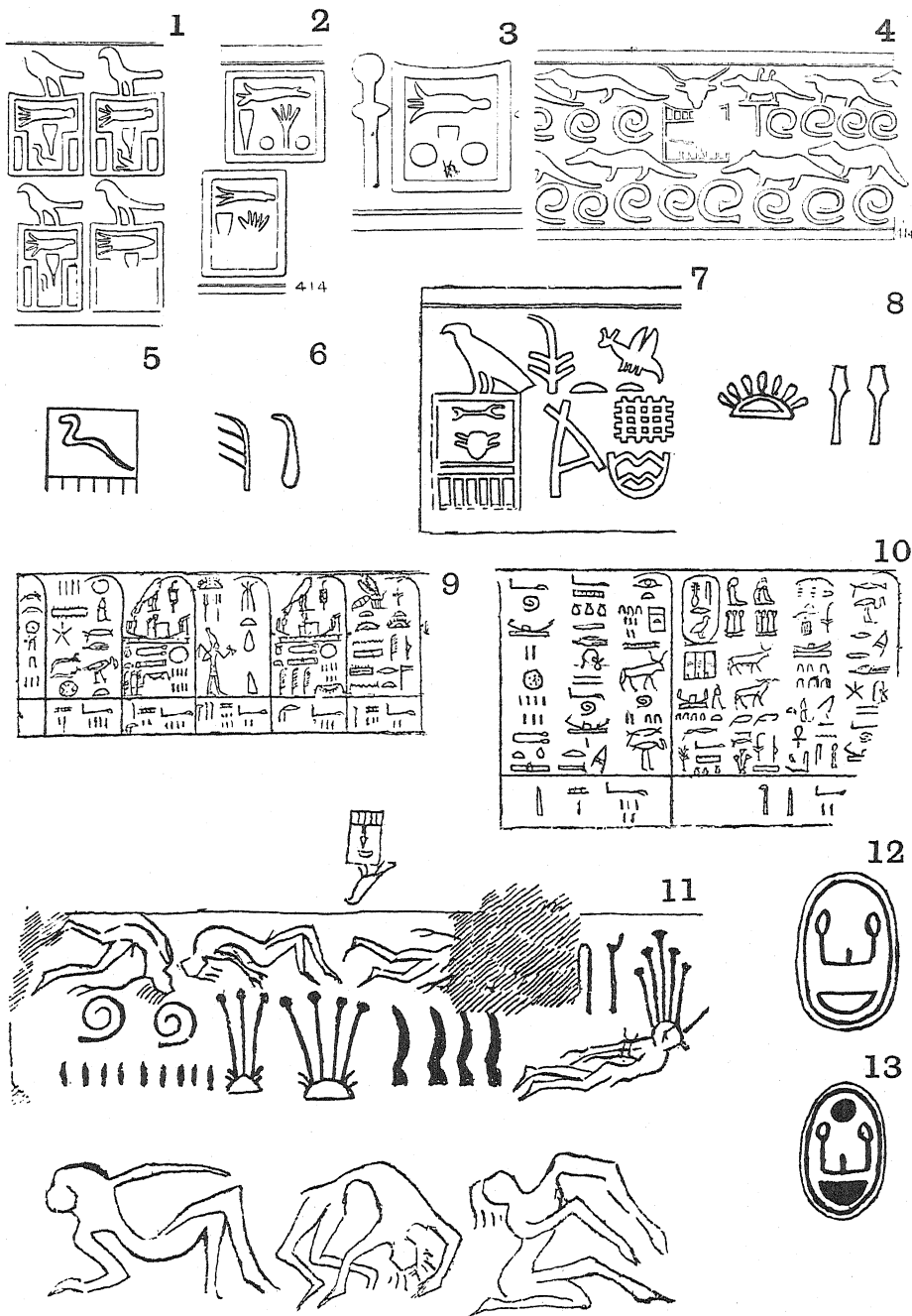
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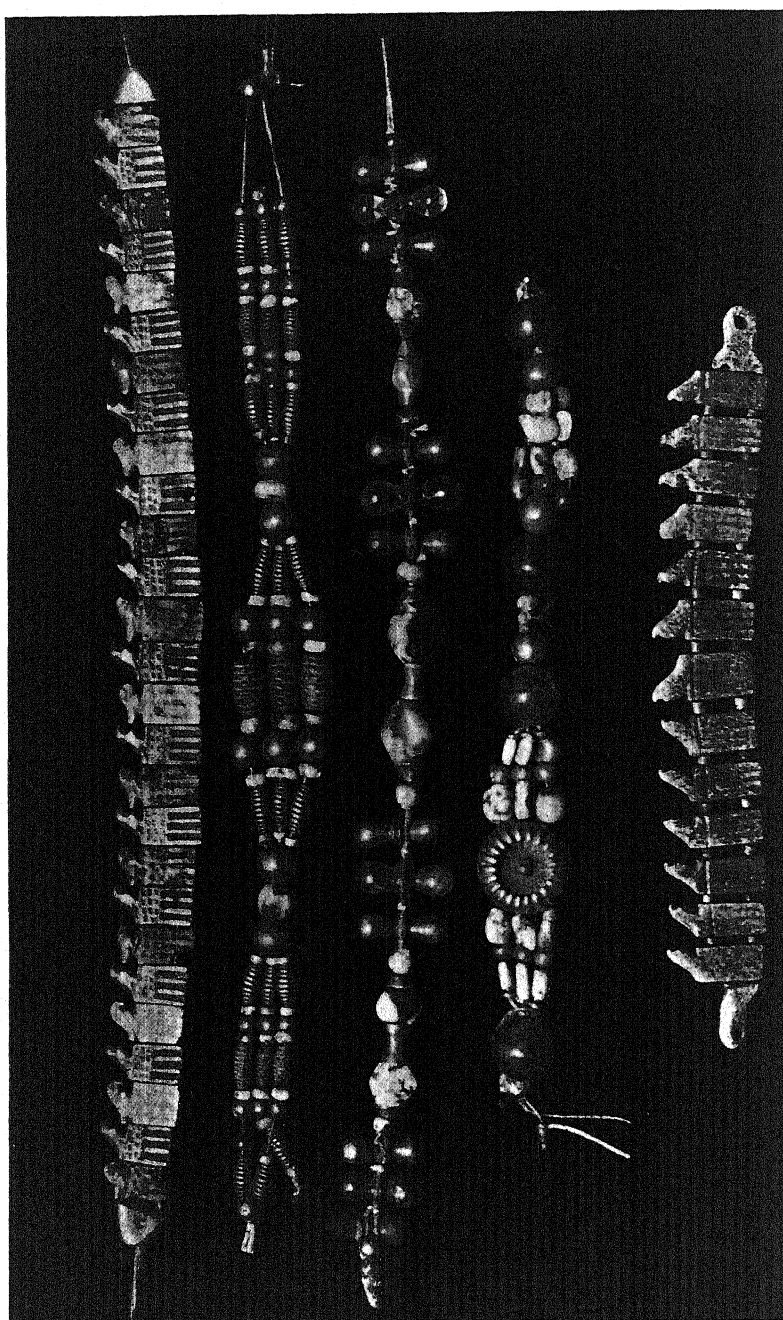
BURIALS, EARLY WRITING, DYN. I.

PLATE XLIV



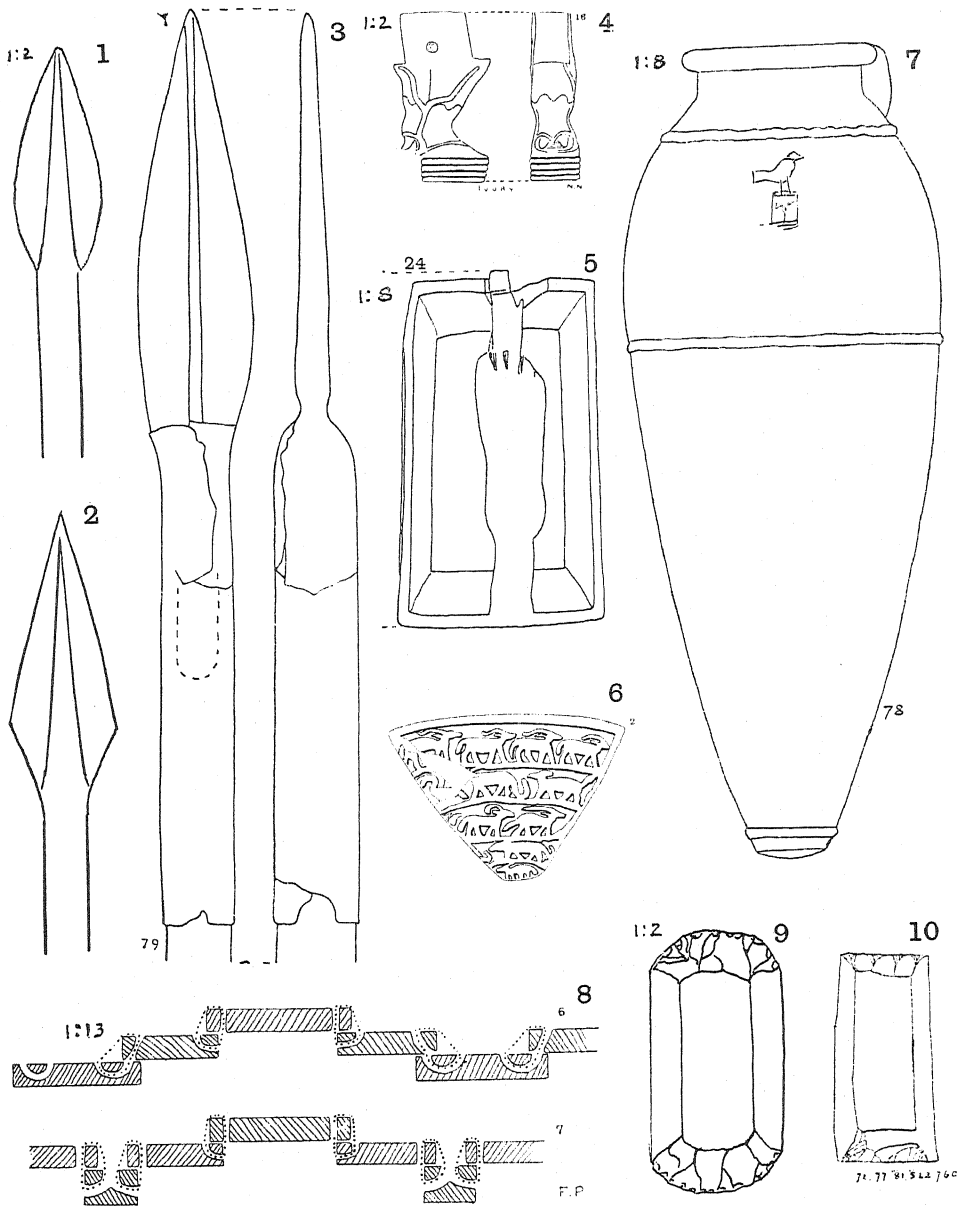
WRITING, DYNs. I-IV., EARLIEST NAME SCARAB

PLATE XLV



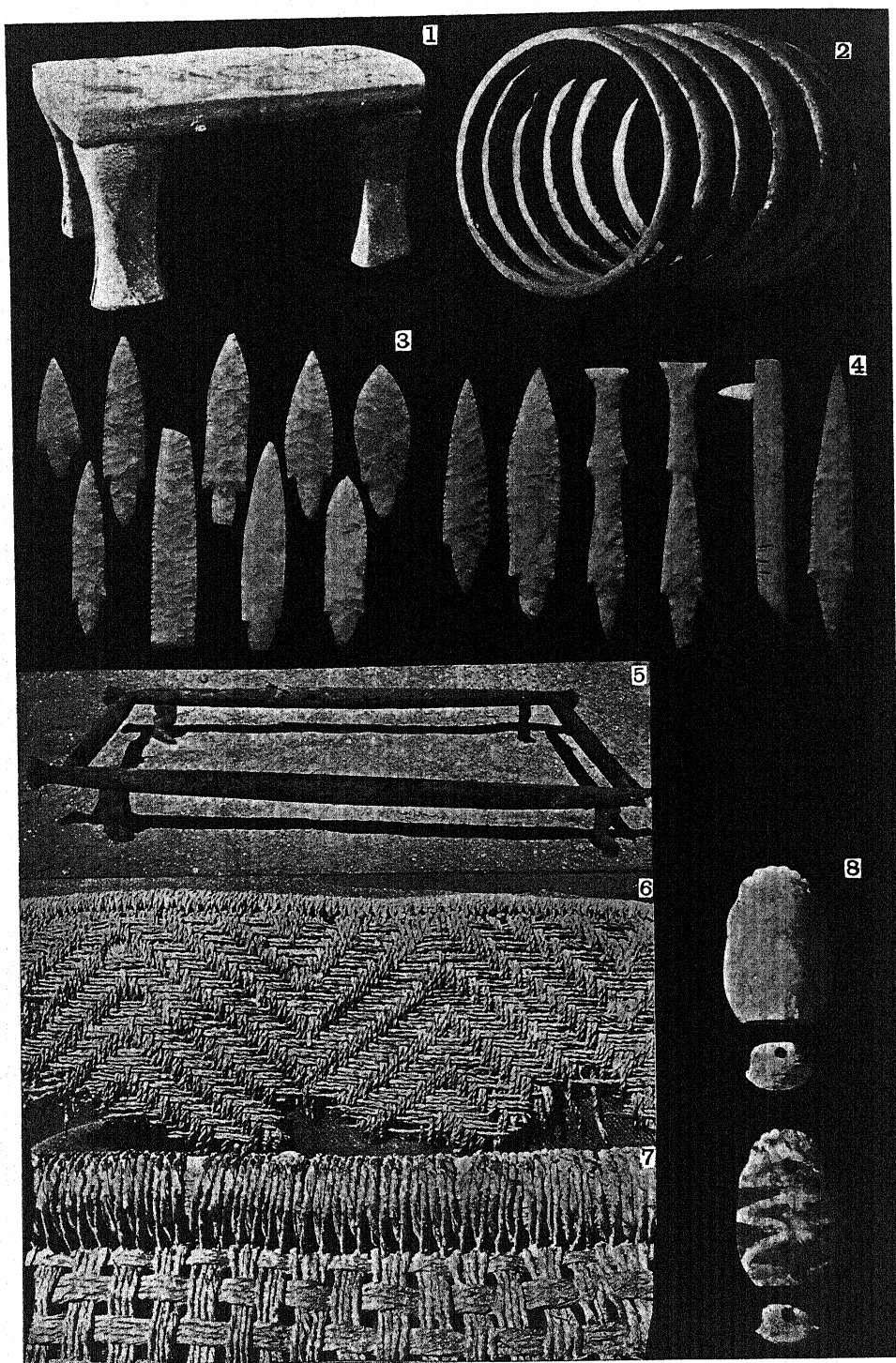
JEWELLERY OF ZER, DYN. I. (SCALE II-10.)

PLATE XLVI



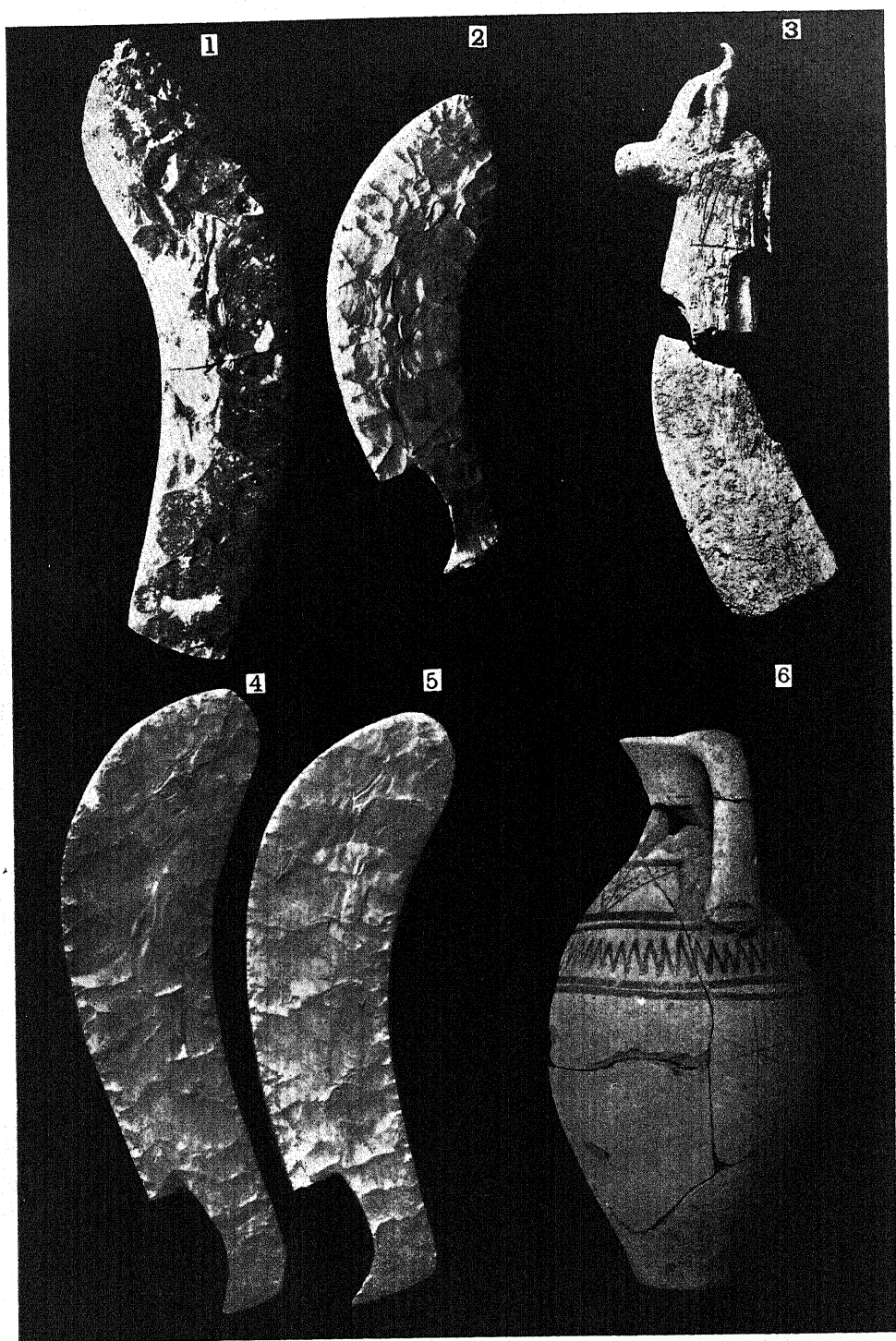
WEAPONS, WOOD BUILDING, JAR, FLINTS, DYN. I. (SCALE 1 : 2.)

PLATE XLVII



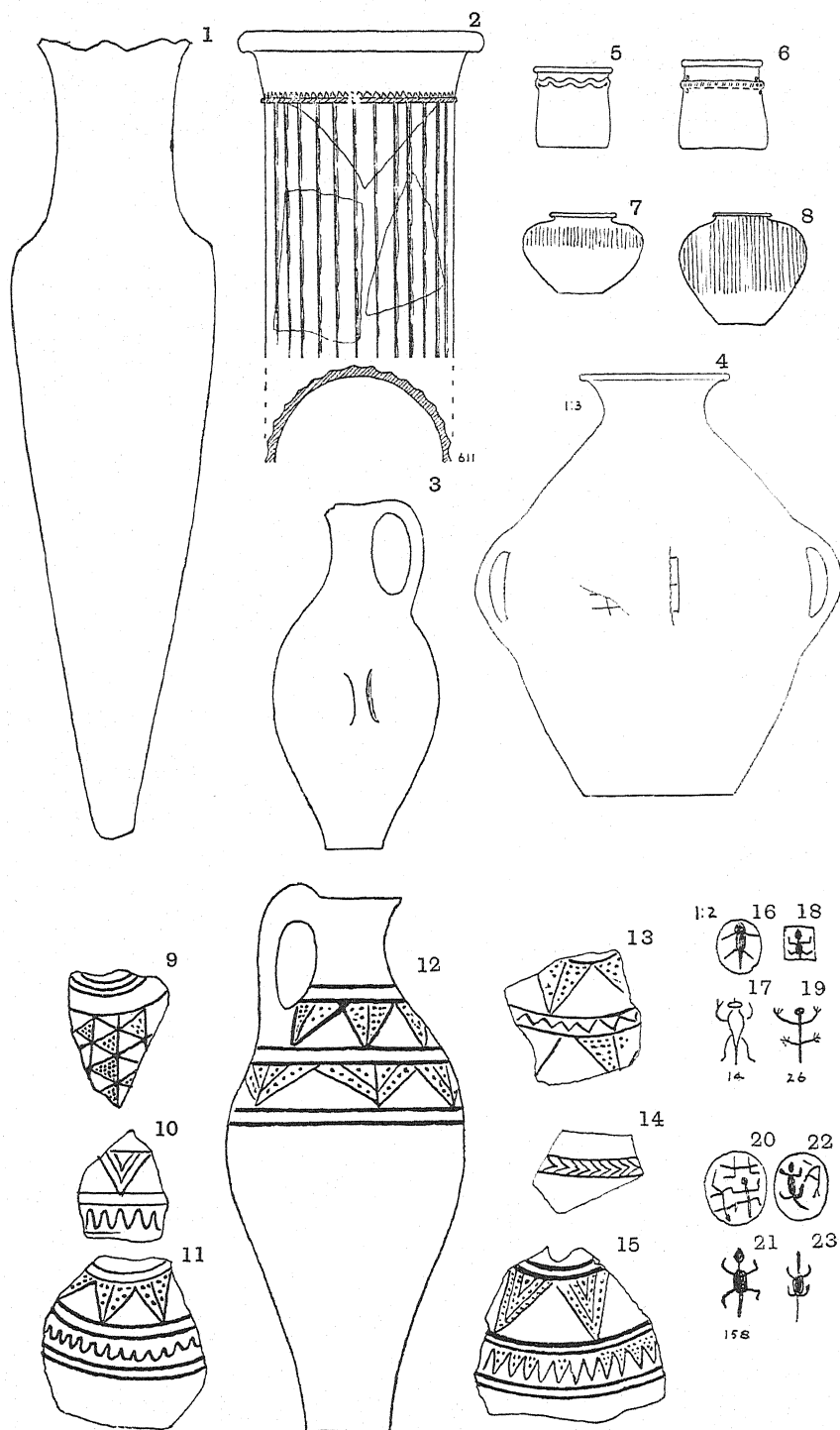
STONE TABLE, ARMLETS, ARROWS, BED, SCARAB, DYN. I.

PLATE XLVIII



FLINT KNIVES, IVORY WAND, PAINTED POT, DYN. I

PLATE XLIX



FOREIGN POTTERY, DYN. I. (SCALE 1 : 6.)

CHAPTER XI

REVIEW OF CHANGES

65. *Changes in various Arts.*—After considering the details of the new movements in the Ist dynasty, we may make a general review of the great changes at the beginning of written history.

There is no question that the Gerzean civilisation was decadent by S.D. 63; the detail of the painted vases had become basely conventional, all workmanship was coarser. The Nubian was pressing his way down the Nile, other peoples were coming into view in Egypt, and the conquest by a vigorous stock from Elam was the happiest fate for the Nile valley. The new-comers brought with them fresh civilised elements, and a brilliant art of ivory working.

The system of portable wooden houses on a large scale was a great step in construction. The whole dwelling could be easily removed twice a year between the fertile plain and the arid desert during the inundation (XLVI).

The weaving of linen was also much extended, and a large amount is found early in the Ist dynasty. Some of the mummy wrappings for royal persons were of such close weave that their fineness equalled that of a modern cambric handkerchief.

Pottery received a great impulse. Enormous jars, up to three feet in height, were made in fine hard ware, entirely by hand, at the royal factories, and frequently bear the king's name (XLVI). Glazing also began on a large scale, for tiles to cover the mud-brick walls, as well as for vases and personal ornaments (XLI, XLIX).

The love of favourite animals is shown in a great tomb of the Ist dynasty. Three asses were buried in the courtyard, each with a raised platform marking the position. A favourite duck was buried in a coffin large enough for a man, matting placed over it, and a platform of brickwork on the top surface (TK II, 6).

66. *Sources of Writing.*—The use of writing had gradually arisen

(XLIII). Various figures of plants and animals had become used for personal marks and also many linear signs, during the prehistoric age, as we have already noticed. So far, no connected use of them in an abstract sense had appeared. This begins with a series of new signs, under the control of the dynastic race. The signs are but few, only about 40 in all, on the cylinders which are probably before Mena, and 17 more in the names of the pre-Menite kings. These signs are as likely to have originated in one country as in another (see Section 59). The later writing gained signs that were solely Egyptian, but there is nothing to show the origin of the early stages of the signary.

Along with writing was developed the use of the cylinder seal, the earliest object on which an inscription is known in Egypt (XLIII). So close was the link of cylinder and writing that the earliest prayers and invocations are all upon cylinders. This points to writing having been introduced into Egypt with the cylinder, probably from Mesopotamia.

67. *Annals*.—The early Annals were a State history, designating each year by the principal events, and recording the height of the Nile. The primary text was issued under Seneferu at the close of the IIIrd dynasty; and it continued to receive additions until nearly halfway through the Vth dynasty (XLIV, 9, 10). It was inscribed on six slabs of amphibolic diorite, a stone of black hornblende with felspar. Each slab must have been 27 ins. high, 16 ins. wide and $2\frac{1}{2}$ ins. thick, weighing about 90 lbs. These cannot have been built into a wall, as both sides must have been equally visible. The best known fragment is the Palermo stone. The later additions largely consist of a terrier of temple property of Heliopolis, which was therefore the source of this copy; fragments of the text on thicker slabs point to other copies in Egypt, which may have been inscribed with other temple registers.

After about sixty names of kings of Upper Egypt, and as many of Lower Egypt, the events under Mena and onward are recorded in each annual partition. The years were a fixed seasonal calendar, as the months and days of the king's accession and date of death were stated. Thus in the Vth dynasty there was a complete history from Mena, with the exact date of every king to a single day, and the chronicle of the main events by which the year was remembered.

Such was the basis of the summary lists of later writers, of which

REVIEW OF CHANGES

we have an epitome in the remains of the Turin papyrus and of Manetho's history.

The mere fact of recording the yearly Annals shows that the new government was conscious of its solid and permanent value in the world. In listing the earlier kings of the race, it was not without material. A traditional record may be kept up for many centuries, as we find that the Bushongo have a verbal register of 121 successive kings, which (in proportion to the last two centuries) would stretch back for more than a thousand years. In the same way, by oral tradition, the Maoris and Pacific Islanders have preserved for many centuries the knowledge of their migration.

Writing was also a common function for the daily accounts, from the 1st dynasty onward; a sample of a scribble of accounts, naming 103, 80 and other numbers, was buried with one of the scribes at Gizeh. Rough scrawls of a king's names were brushed on with ink, to mark the royal property. The art of writing, though by a complex collection of signs, was by no means an exclusive or rare acquirement, but frequent and of ordinary usage. Similarly, a sign writing still more complex was in early use in China.

68. *Titles*.—The titles of the 1st dynasty officials are only known from the sealings belonging to offerings of food supplies, and a few have been found on small funeral steles. Only to state here the earliest example of each title—we know, in the reign of Zer, of the controllers of inundation and controllers of sheep, the head of the sealers, and the manager or benefactor of the farmers; in the reign of Zet, the door-keeper of the audience hall, the conservator of waterways, and controller of the elders of the farmers; in the reign of Den, a controller of the interior (Home Secretary), controller of canals and roads, managers of the vintage and the wine-stores; a list of nomes or provinces also occurs. In the IInd dynasty there is more officialism. The sealings record the viceroy or vizier, bearer of tribute, keeper of jewellery, sealer of offerings, registrar of supplies, and various other titles. It is evident that the country was being rapidly organized, in the most vital particulars first, and then in all the additional management needful for smooth working of government on a larger scale.

69. *Building*.—Among public works, there are fortifications, with

towers projecting along the walls, as early as the reign of Nar-mer, Mena. A curious form of conical tower is incised on a label, and also carved in the round. It is represented with a ladder reaching up to an entry and defended by machicolations which are battlemented (XLII). An actual brick fortress of the end of the IIInd dynasty, still standing at Abydos, has walls 35 feet high and 17 feet thick, and is protected by a fosse and an outer wall. In the tombs of the kings of the Ist dynasty at Abydos, there is a steady advance from a plain square pit of brickwork, with a wooden lining, to an elaborate construction of great wooden beams, and surrounding it was a row of brick store-chambers stocked with immense quantities of funeral offerings. By the time of Den, just after the middle of the Ist dynasty, a pavement of blocks of red granite was laid in the chamber. It is not till the end of the IIInd dynasty, however, that a complete stone chamber is found, constructed of blocks of limestone mostly with natural cleavage, but often dressed down by bruising with hammer-stones (Kho-sekhemui). Fluted columns of wood were in use by the time of Zer, and an ivory model of a column is known and copied in the supports of head-rests in the reign of Zet (TK II, ix). Shrines were built as small sanctuaries enclosed in a court, which has the emblem of the god placed in the midst, and two flagstaves at the entrance (XLII, 4).

Sculpture was on a small scale; the ivory figures are many of them beautifully wrought and most spirited; the figure of a king with lifelike expression (XXXVII, 10) is a celebrated example. Some larger figures in limestone are known, and the making of a statue of a god is the name event of a year in many instances.

By the end of the IIInd dynasty, there are seated figures of the king with a fine natural treatment of the face (XXXVIII, 16). Figures of animals in ivory, such as the lions for gaming pieces, were excellent (XLI). The great royal steles have not often survived, but that of Zet is a fine and vigorous piece of work, where minute workmanship of the artificial panelling serves as a foil to the simple dignity of the animal forms.

70. *Metal, Flint, Stone, Glaze.*—There was a large increase in metal-work due to a free access to copper supply. Tools became heavy and commonly in use. Even a statue of copper is named at the end of

REVIEW OF CHANGES

the IIInd dynasty. Copper ewers were beaten out, and had spouts, cast by *cire perdue*, clenched on them. Copper bowls and platters were freely in use, and wire was cut from sheet copper, and was employed for securing wall tiles to the brick walls. A good deal of gold remained in the Royal Tombs after the repeated plunderings. The gold-work of the bracelets of Zer (XLV) shows a mastery of fine soldering and free use of hammered wire. There were gold bangles, and covers to jars of Kho-sekhemui; also a remarkable curved gold bar inscribed with the name of Aha, and a gold hairpin. Small pins of gold were used in the repair of stone vases.

Flint-work continued of moderately good style. It was employed for large knives (XLVIII), hoes, animal figures, scrapers for fish, fine arrow points (XLVII), and for remarkable flint bangles (XLVII), of which as many as eight have been found preserved on an arm. Scrapers with parallel flaking and round ends are common (XLVI).

The variety of stone vases was much increased for the royal table service, and the finest materials were especially sought, as blue-grey volcanic ash and magnesite. Quartz crystal was often used for small vases. A grand vase of syenite, 2 ft. across and only $\frac{1}{4}$ in. thick, highly polished, was found at Hierakonpolis (Manchester Mus.).

Ivory was used for small sculpture, as noticed, and little boxes were made of it, as one for the king's seal. Small inscribed labels were numerous, slips and pieces for games, and dancers' wands, with gazelle or other heads (XLVIII, LVII). A toilet dish for ointment, of the reign of Zer, was carved in one block of ivory, as a duck in two halves yet linked by tail loops. Ivory-work is for the most part highly finished, and the engraving very delicate.

Games were developed. The old 3×10 board continued, and a spiral board was depicted, and one in limestone has been found.

Sedan chairs were figured in low relief, and modelled, with rounded top, in glazed pottery.

Glaze was greatly used, and large wall tiles covered the mud-brick walls. In addition, glaze was used for figures of animals, especially baboons, which were offered in temples. Also there is preserved the glazed plaque of a chief who visited the temple, a kind of visiting card, with his figure and name, Tera-neter (XXXVII, 9).

Glass is very rarely found, indeed only for small inlays, green and black, of the time of Zet. From its rarity in all ages before the XVIIIth dynasty, we may suppose that it was imported from a distant source.

It is clear what an enormous advance was quickly made by the incoming of the dynastic race. The confusion and poverty of the decadent Gerzean culture, failing in every respect, is succeeded by an outburst within a few centuries on an entirely higher plane. This new civilisation completely wiped out many old ideas, such as the use of the slate palette, and it brought in writing. The invading people conceived a most spirited and delicate art, and the remains discovered in the early sites witness to their skill in craftsmanship. There was no subsequent age that had a finer or nobler taste; this is shown in the ivory-work both of figures and of hieroglyphics. Yet during this age there was evident decadence (see falcons in pl. LI); the most perfect work is under Zer, Zet is rather mechanical, each reign sees a lower standard down to the close of the Ist dynasty. What could follow?

There is no question that Egypt owed more to Mena than to any other man. He organized a new frame of society, within which it permanently grew, and his successors were merely reflections, but they were Caesarian and not Sullan in their shaping. No later founder of a dynasty, unless perhaps Khufu, made any such permanent advance in the framework of the Making of Egypt.

71. *Dynasty II, Tombs.*—The IInd dynasty came to terms with the earlier Aunu people, and the first king took the name Hetep-sekhemui, "peace of the two powers." By the middle of the dynasty, the Aunu people began to control the rule, and Set appears on the royal name instead of Horus. By the end of the dynasty, the two sceptres were "united in peace" by Kho-sekhemui.

Pl. L. Development of early dynastic tombs. Beginning with the simple pit burial, no. 1, early in dyn. I, there is sometimes a wooden coffin, no. 2. Later, a separate chamber was provided for offerings, no. 3. By mid dyn. I there are two or three chambers, no. 4, also a pit for access, no. 5; or a stairway, no. 6, or three chambers were provided, no. 7. In dyn. II a stone slab was added, to close the chamber, no. 8, which might be triple to contain offerings, no. 9. Lastly a shaft was cut, of depth varying down to 80 feet, with chambers

at the bottom, nos. 10, 11. At last all of these types were used together; here we only trace the development finally reached.

For wealthy tombs a brick mastaba with panelled sides was built (S.D. 80), in imitation of the wooden dwellings of great chiefs (12). In the interior was the central burial chamber, and various chambers around it for offerings; some viziers in dyn. I had piles of weapons, tools, clothing and offerings stored.

Pl. LI. Royal sealings of dyns. II and III: (1) "Overseer of Neter-en"; (2) name of "Sa-nekht"; (3) "register of food of Neter-khet (Zeser) vineyards"; (4) barrel form of arched cover to a tomb, with blue stripes. Being of mud brick, such monuments have all disappeared, and this is restored from the form of parts of the white stucco cover.

(5) Series of forms of the royal falcon, dyns. I-III, showing how the drawing became perfect under Zer; it faded, owing to formality and copying from Zet down to Neterkhet.

Pl. LII. No. 1 is the relief carving on the ivory handle of a flint knife, probably before dyn. I (*P.E.*, xlvi). The close resemblance to no. 2, carving on a modern Indian gravestone, is very strange; the specific difference is that the rosettes in no. 1 are six-leaved, but in no. 2 are seven- and eight-leaved. The six-leaved is unEgyptian, marking Syrian or oriental influence; yet the lapse of 7,000 years seems to bar any link of nos. 1 and 2. Are there intermediate examples like these?

No. 3 is a limestone game board, as described in sect. 72 (LIII, 1).

No. 4 is an ivory comb, marked for the owner *Ka-d* (1st dyn., S.D. 81, *TK* I, ii).

No. 5, ivory spoon with curved handle.

No. 6, blue paste vase form, dyn. I.

No. 7, blue glazed vase, and no. 8, back of inlay plaque, from Hierakonpolis.

No. 9. Copper needles with three forms of eye: *a*, with hook to drag thread; *b*, with slot cut in a part hammered flat; *c*, with turnover top to form eye.

No. 10. Group of copper workers. The raised hands should hold a stone which was flung down on the metal. The base of a bowl was hammered on an anvil block, to shape it. The curved spouts were cast (*L. D.*, II, 49).

72. *Dynasty II, Games.* Pl. LIII.—The circular board, with a serpent outlined, is for a game, *mehen*, “the serpent.” The pieces are placed below here at no. 2. It was played with counters black, red and white, partly defaced, six of each (W. M.C., 323). In what way the lion and lioness were used is not shown; probably they were handled by opposite players, and as they are far too large to be assigned to a division, it may be that getting a block of counters together gave the right to block with a lion and release the counters. There is no sign of chance throwing, so it must have been entirely a game of skill in position, playing alternately as in the modern *siga*. The triangular projection may represent the foot of the board, like the stone tables of that age, but it is figured above the board in L.D., ii, 61, and Birch copied this for Wilkinson. There are about 517 divisions here; on two actual boards of limestone there are 72 and 29 divisions.

Below this is a board (no. 3) with the usual divisions of 3×10 squares, numbered from the lower right corner. At the end of it (no. 4) are the playing pieces. Each party had seven men; in the middle are four throwing-sticks intended to show the values of moves by throwing them and seeing how many lay face up. They are carved to imitate slips of reed bark (see XXIII, 41). Similar slips are used in Egypt now, for the numbers in a game. It was this game that gave rise to the hieroglyph *men* for endurance, but the game was called *sent* or “plotted,” referring to the divisions like enclosed fields. Below this is a long board in sixteen divisions, with playing pieces, black and white, five of each. This game was called *men* (*Medum*, xiii). From the bars put across the board, it seems as if the pieces were laid in grooves which would hold three pieces end to end. Such a block of three may have stopped the other player. As there are no lots for chance, the game may have been entirely for position. No different board-games are represented after the IIIrd dynasty. Of actual boards there is a variant 3×14 with a pool. There is also a 3×11 board with the centre marked; perhaps it was to be left blank as for *siga*, and this implies a game of selected positions entered before playing (*Objects of Daily Use*, xlvii-xlviii).

CHAPTER XII

THE PYRAMID AGE

73. *Motives of Dynasty III.*—A breath of life came from the Sudan. The new dynasty was headed by Sa-nekht of Sudany type (XXXVIII, 17), and he gave a fresh impetus which was later continued by Zeser. Yet there was no new invention, but only a strengthening of the old style, without a different art.

This southern source was likewise the inspiration of the XIIth, the XVIIIth, the XXVIth dynasties, and in a similar manner.

A statue of Zeser was found in position in his pyramid temple (LIV), but so much defaced that the type is obscured.

The Sudany infusion continued in the upper classes, as seen in the head of Seker-kha-bau (*Saqqara Mastabas* II, i).

The development of stone building at the Step Pyramid of Zeser at Saqqara was based on earlier craft, the carvings of dyn. I in wood and ivory. Small objects, such as head-rests, had columns with convex fluting, and also with concave, in the IInd dynasty. These motives may have originated in the larger work and, later, been borrowed for it again. A similar translation from wood to stone is also to be found in the stone copies of wooden doorways, and of wooden doors represented as thrown open, at the entry of chambers in the temple of the Step Pyramid.

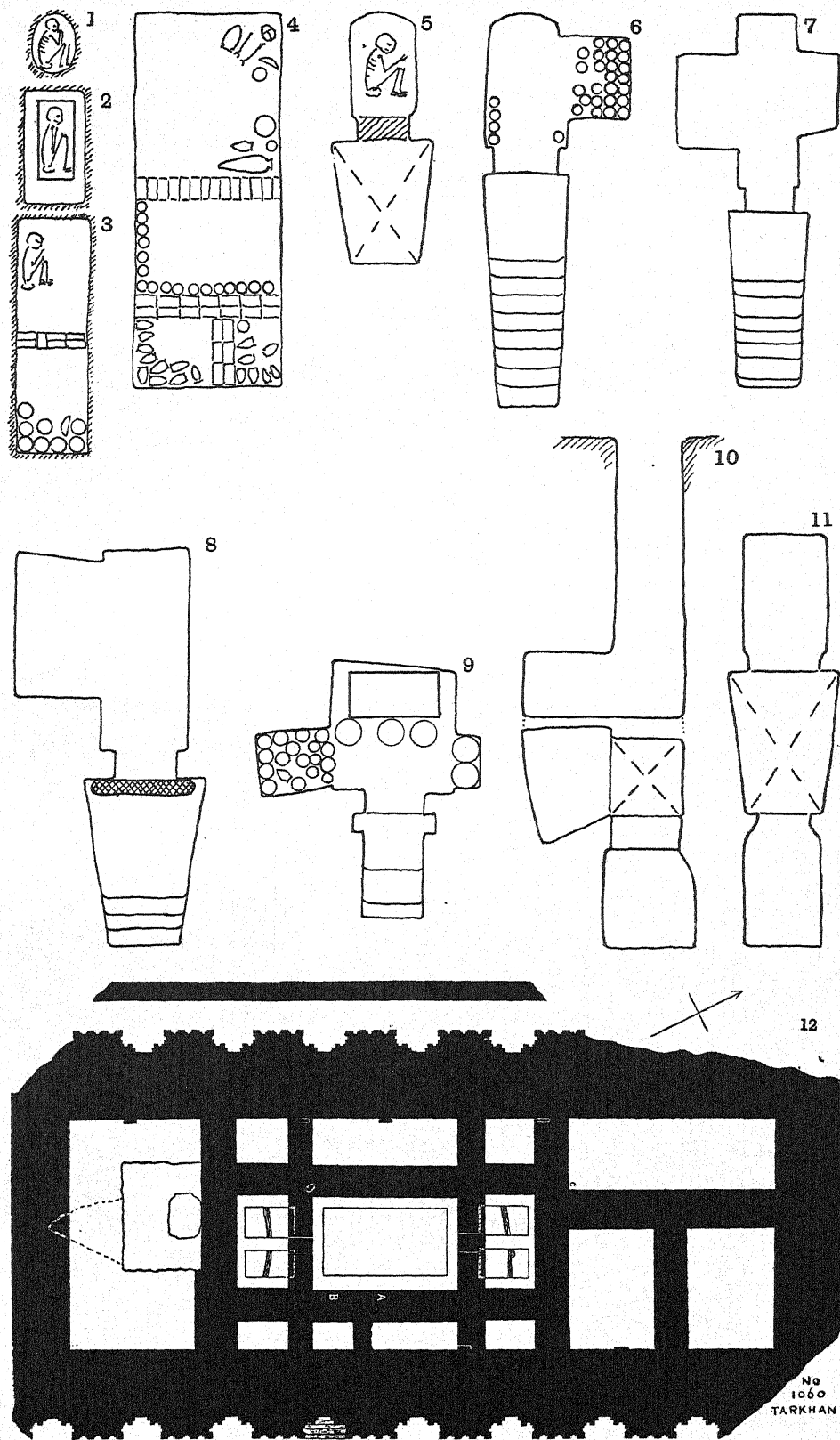
By the middle of the Ist dynasty, indeed, both types of fluting were in use, and at Saqqara in the IIIrd dynasty (LV, 2) we see these motives continued. Similarly, the columns with unfinished Hat-hor heads (LV, 1) are anticipated by a row of Hat-hor heads carved by Nar-mer (XL). What is new is the translation of wood-work forms into stone, and using stone so largely as to build a column more than 20 feet high. Yet this work was tentative, the courses were under a foot high, of a hard splintery stone, and columns of such small blocks could not be trusted, but were always engaged with a wall behind.

74. *Painting of Offerings*.—The imitation of green rush matting by little panels of green glaze was done on a large scale, but such mat-work pattern is known from the 1st dynasty. Glazed tiles copied from mat-work (LII, 8) were regularly used then for covering mud brick walls. It was only the scale, and not the nature, of this work that was new (*Egyptian Architecture*, fig. 84).

The tomb decoration in the latter part of the IIIrd dynasty is remarkable for painting every object its actual size. So accurate was the artist, that it is possible to gauge the liquid measure by the drawings on the wall. This was the forerunner of all the later tomb painting which represented the property of the deceased. The tomb of Rameses is well known from the splendid panels of wood carving (*Arts and Crafts*, 55). The painted detail shows the gaming board and pieces (LIII), the tools, and furniture in a minute manner (Quibell, *Excav. Saqqara*, Hesy).

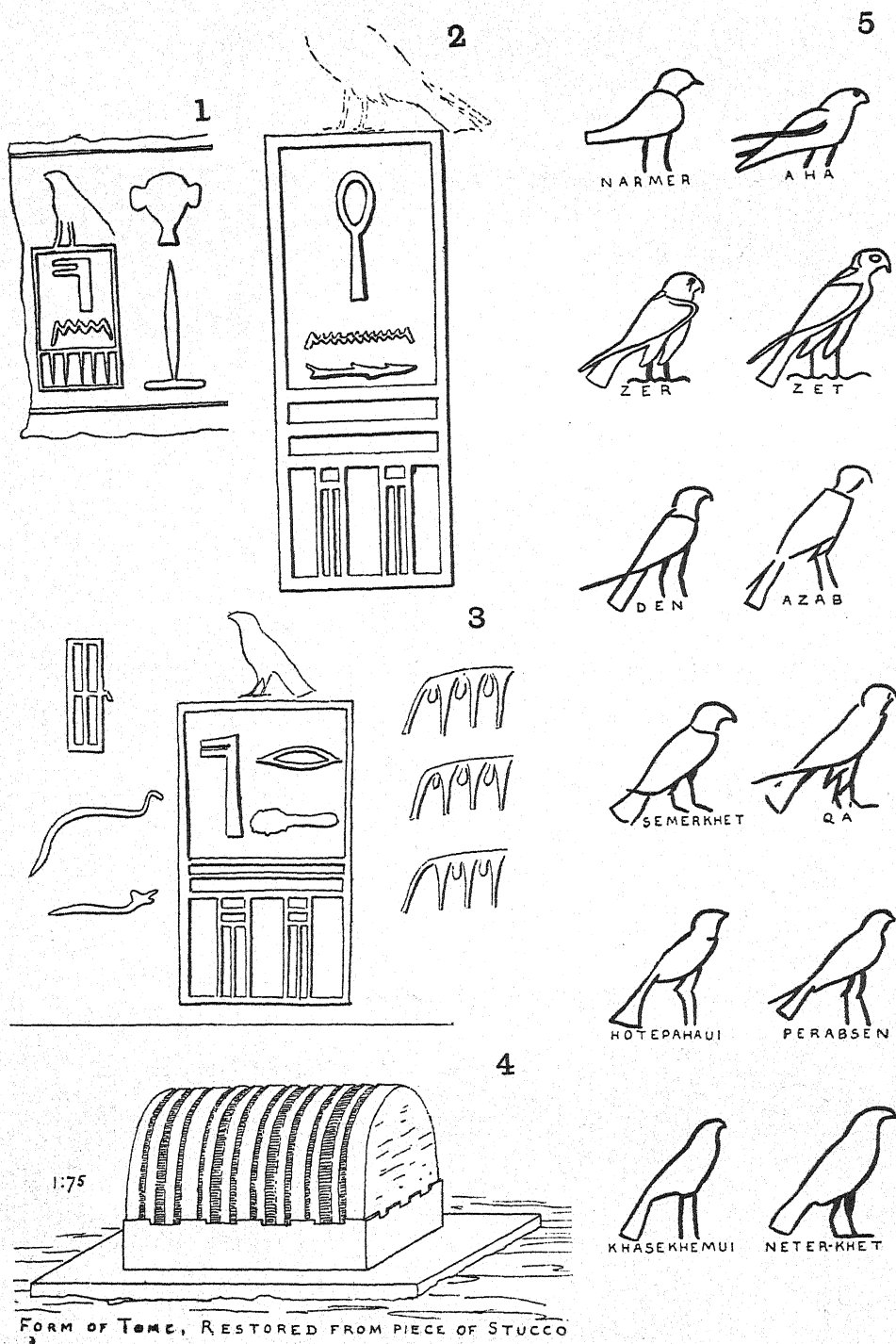
75. *Tomb Forms persistent*.—The development of the common tombs, down to the IIIrd dynasty, is well seen at Lahun (pl. L). The stair and shaft tombs are late in design, but the earlier forms survived, contemporary with them, as evidenced by the late types of their pottery. The form of a tomb may prove an early, but not a late, limit of age.

PLATE L



LAHUN, BASHKATIB TOMBS, DYNs. I-III.

PLATE LI



FORMS OF TITLES, DYNs. I-III.

PLATE LII

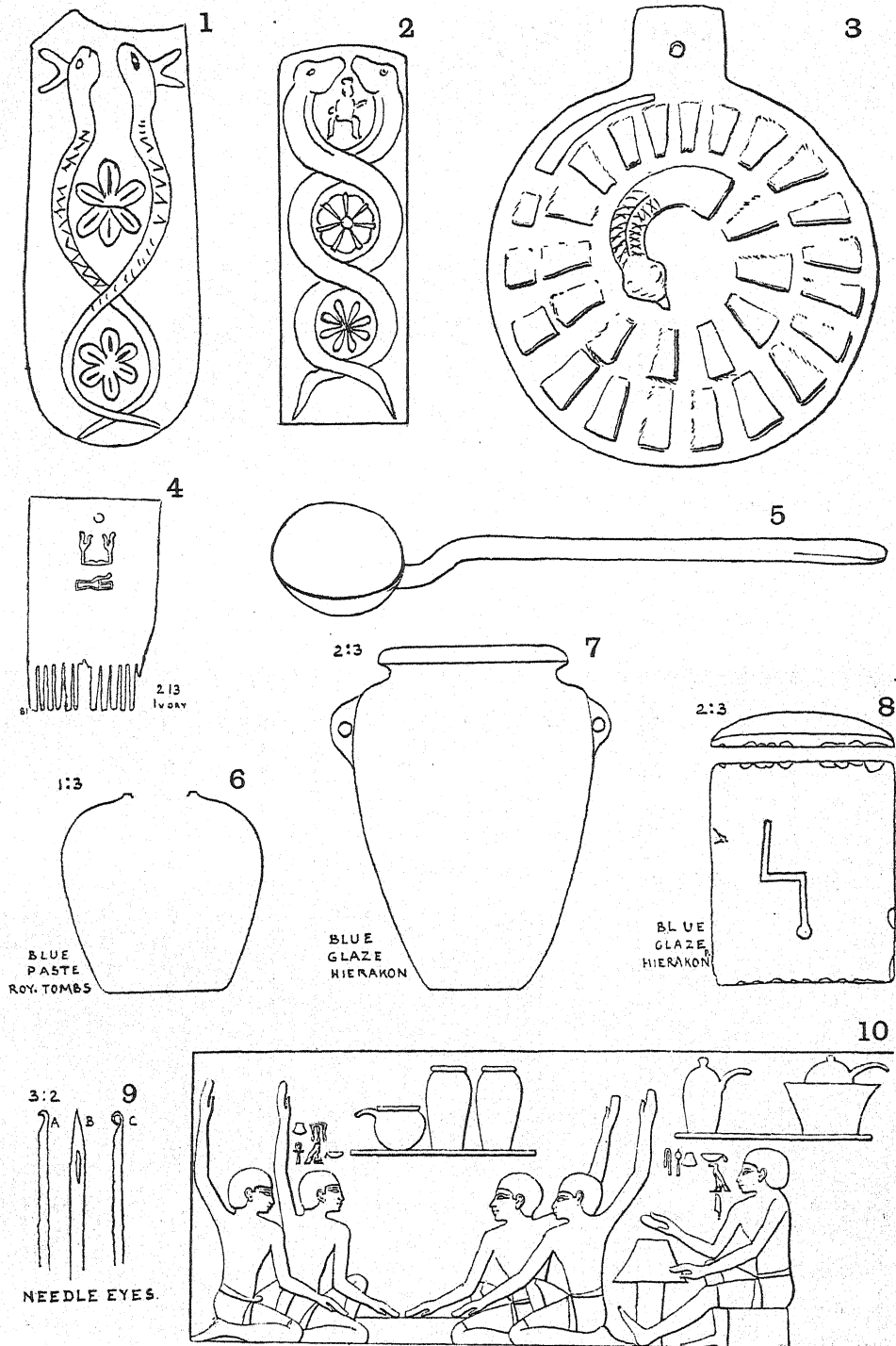
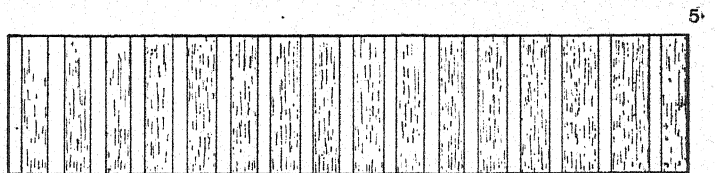
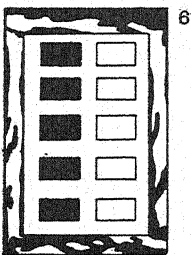
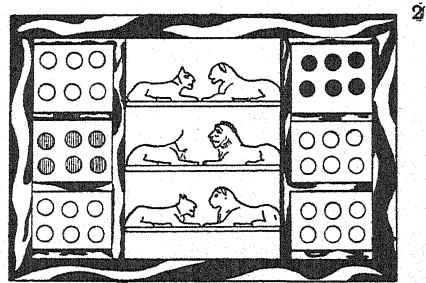
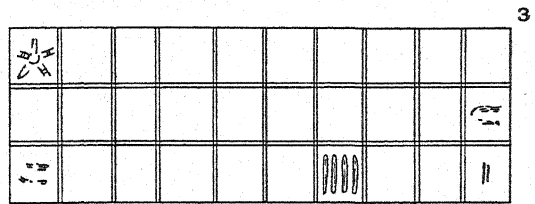
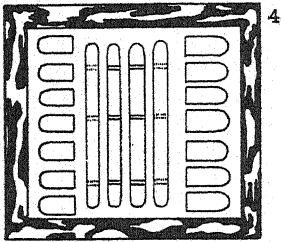
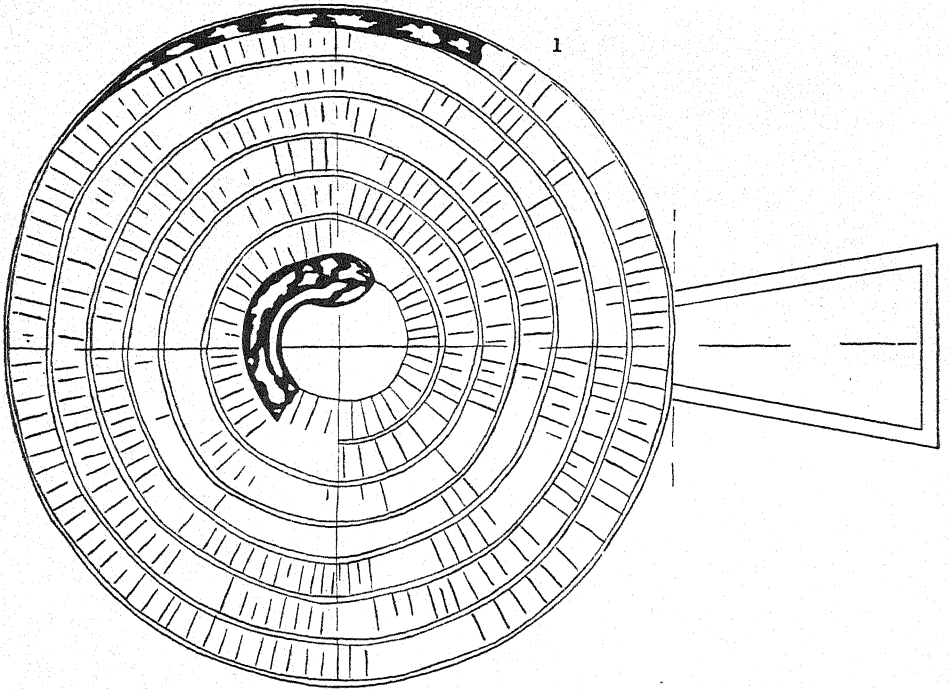
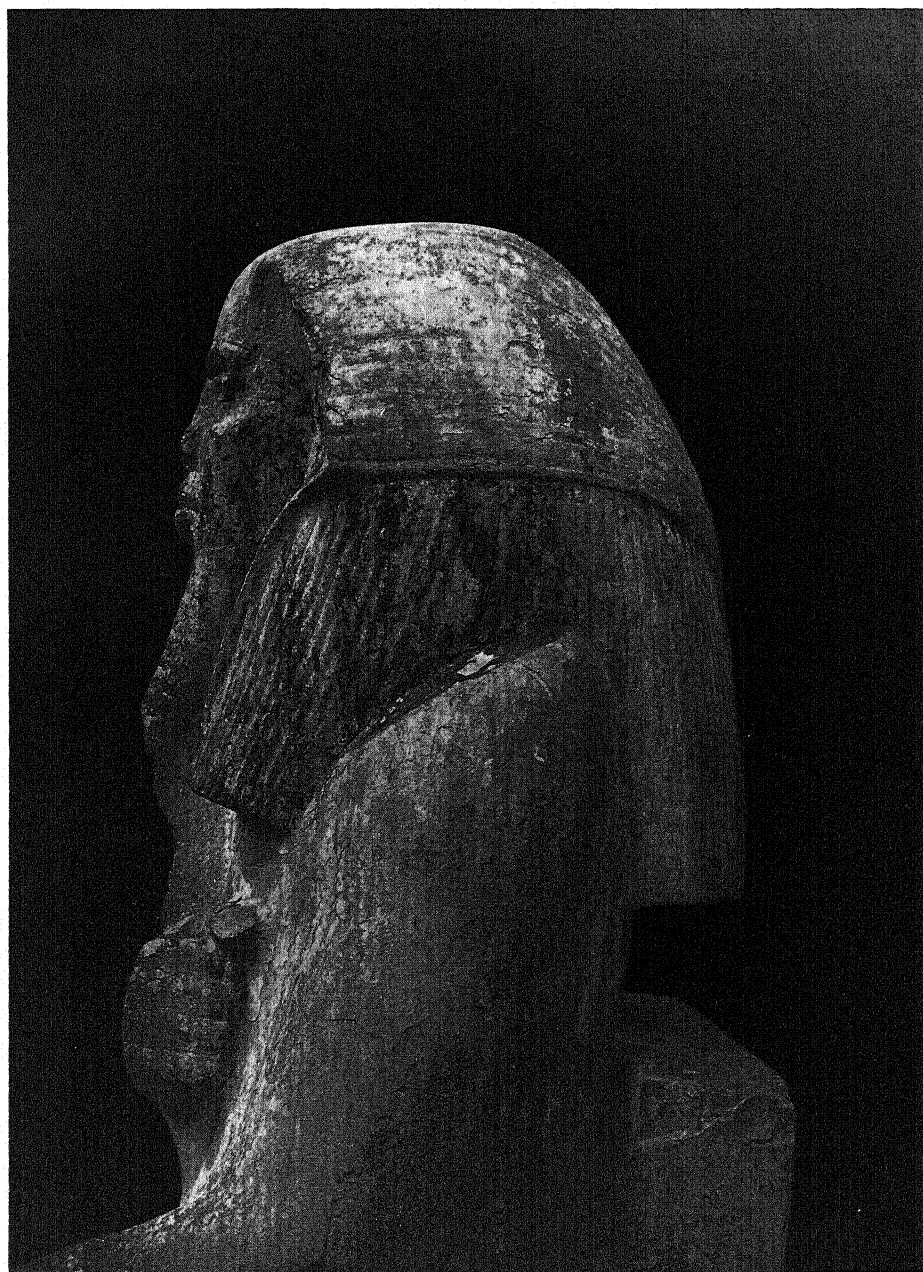


PLATE LIII

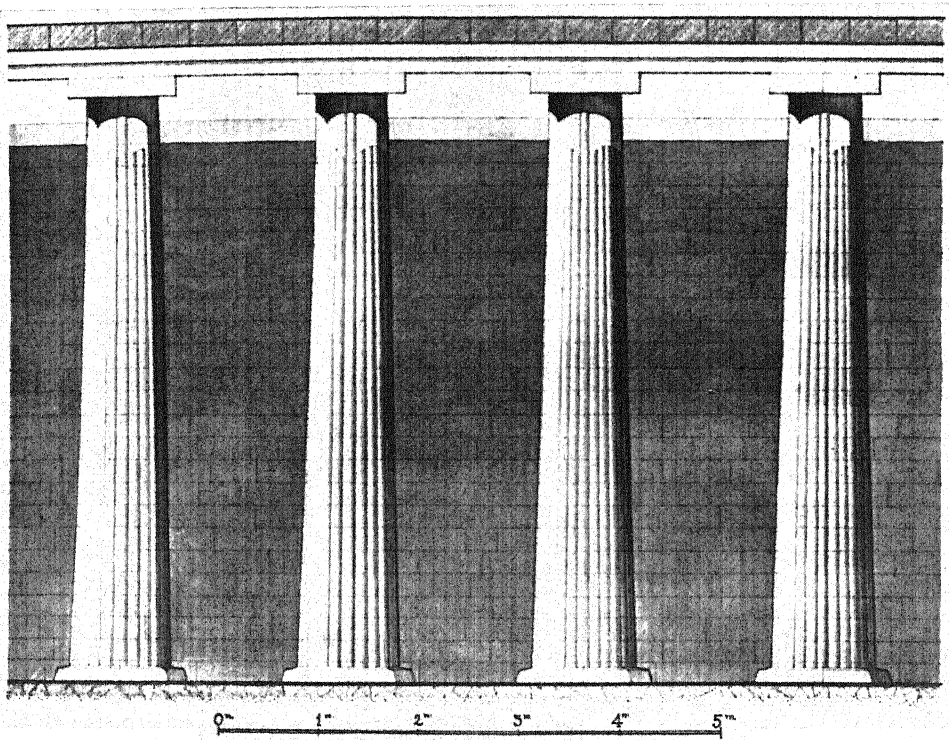
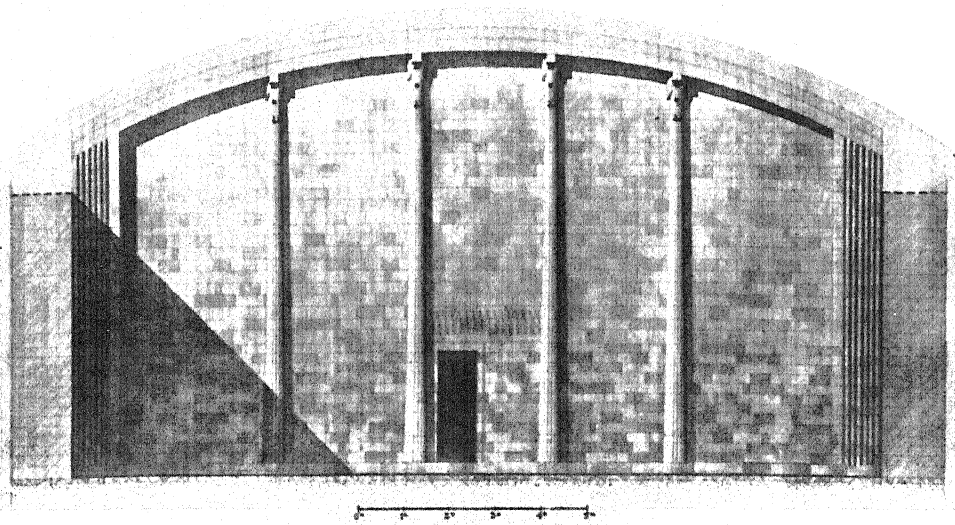


GAME BOARDS AND PIECES, DYN. III.

PLATE LIV



STATUE OF ZESER, DYN. III.



TRANSLATION OF WOODEN FORMS TO STONE.

CHAPTER XIII

THE GREAT KINGS

76. *Portraits of Dynasty IV.* Pl. LVI.—Now let us turn to the men who ruled this great age. Khufu is only known to us by a tiny ivory figure (LVI, 1) enlarged here to three times the actual size. The tremendous vigour and driving power of the square jaw and high cheek bone is unrivalled. Not even the former great leader, Mena, could have withstood Khufu.

2. Zed-ef-ra, the co-regent who died first, is fine and expressive, but without the dominating ability.

3. Khafra is a quiet, far-seeing man, stern but kindly.

4. Menkaura is rather vulgar, with bulging eye, and without ruling power. The decline in origination is notable. They were not related.

The dynasty was the creation of the one super-man, the rest but followed in his train. Khufu was the great organizer of a new society and system of government, which influenced all later ages.

Unfortunately, most people have a very vague appreciation of portraiture. At present it is customary to attribute many different types of face to a pharaoh of the XIIth dynasty, Amenemhat III. One German writer lately came to the conclusion that there was no portraiture in the sculptures of the early kings. If anyone cannot see the essential differences of type and character in the statuary, let him follow the example of the colour-blind, who at least do not dogmatize on colour.

77. *Works of Dynasties I-VI.* Pl. LVII.—No. 1. Colossal granite head of Userkaf, the founder of the Vth dynasty, which shows a new type of dominating energy. Some examples of earlier work occupy the lower part of this plate.

No. 2. Fine engraving on diorite of Kho-sekhemui (dyn. II), and the only mention of his queen, Nub-khetes, "Gold is her body."

No. 3. Scribe's palette, under Zet (*Gizeh, Rifeh*, iii). No. 4. Spoon and button-badge, age of Pepy (*Qau and Badari I*, xlix). Nos. 5, 6. Two heads of foreigners, broken from early door sockets (see Schaefer, *Kunst*, 170). No. 7. Ram-headed wand of ivory, middle Ist dynasty (*T.C.*, viii).

78. *Scenes of Action, Dynasty V.*—The origin of the Vth dynasty was with the priests of Ra at Heliopolis, according to an early tale. They set up obelisks to Ra, and were the first kings called sons of Ra. Two new features in building are the palm-leaf column and the clustered papyrus column. The air of geometric simplicity is gone, and a typical subject is the market scene (LVIII). The men sit by their basket of fish, or cakes or vegetables, and women bring their confections, saying "Smell it," or their basket of dough; men bring a necklace or fish-hooks, a string of beads, or a fan. The names are alongside the figures, as Aun. ka and Min. mert. This is typical of the scenic or dramatic work of the Vth dynasty.

The same principle appears in the fight between Egyptians and Asiatics outside an Asiatic fortress. The Egyptians had Bedawy auxiliaries who tried to swarm into the fort by a ladder, but were ignominiously defeated by the women. In the second register, the king of the fort is seated, tearing his hair at hearing from two women how the Bedu are getting in. Meanwhile, women are fighting the Bedu. The Egyptian artist evidently vented his contempt for the Bedu, as worthless allies. The scene of mining the fort, and the man kneeling down to listen inside, is an excellent point in the conflict. Another graphic detail is an Egyptian carrying off a girl on his shoulder; she is only afraid of falling, and holds on over his head.

79. *Figures of Youth, Dynasty VI.*—There are no such scenes of action, of the VIth dynasty, but some finely expressed statues. The life-size figure of Pepy is in hammered copper, and another of him as a youth (LIX, 2); that of Mery-Ra-ha-shetef (LIX, 1), now in the British Museum, is a most expressive personal figure, with a deprecating air, quite different from his two older selves (*Sedment I*, vii-x). It seems to have been a custom at this time to provide several figures of different ages for the *ka* to inhabit.

80. *Changes in the Old Kingdom.*—On reaching the end of this greatest

age of art in Egypt, we may sum up the changes which developed, though no great fresh influence on people appears in dyns. IV-VI.

In the IIIrd dynasty there was the achievement of using stone for wood, fixing the principles of art. In the IVth dynasty, statuary was used to express character and the essence of the individual; compare Greece in 470 B.C., or Europe in A.D. 1250. In the Vth the impulse was for action and dramatic conflict; compare the Amazon motive in Greece.

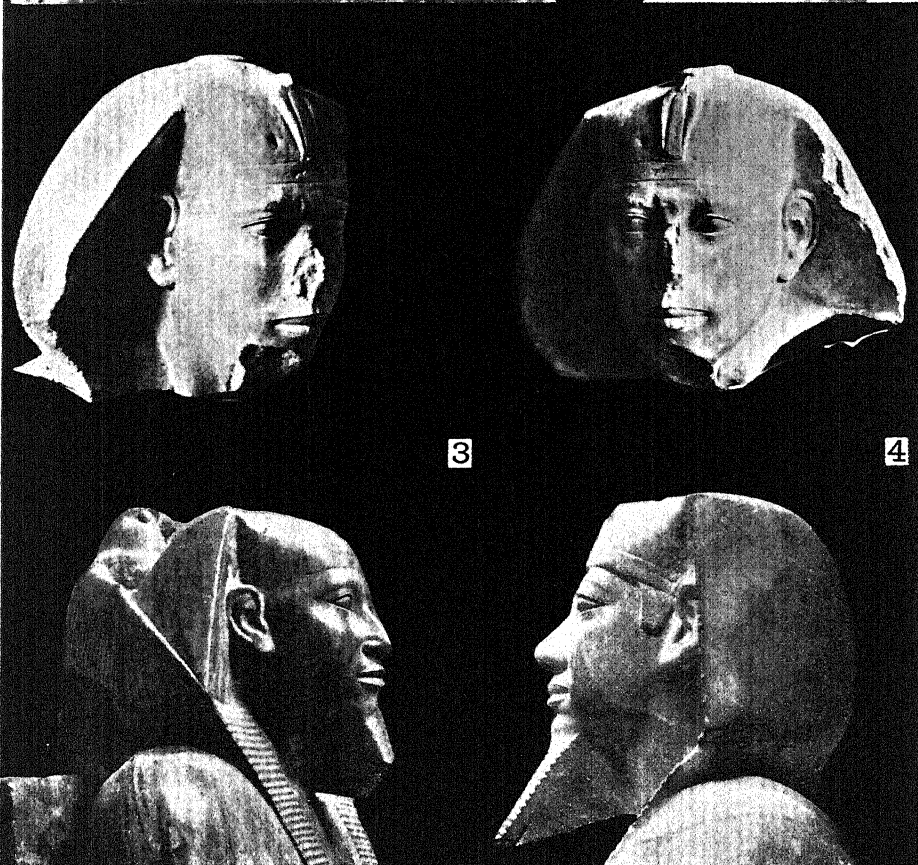
In the VIth dynasty came a sense of the charm of youth and anticipation; compare in Greece, the Hermes of Praxiteles. The parallel developments in Greece may help to strengthen our appreciation of the difference between periods.

After the weakening of motive, the fossilising stability of a reign of 95 years, that of Pepy II, brought the country low before the advancing northerners broke in.

The bitter storm of the north was gathering, such as Egypt had not known since the Badarian conquest—movements more diverse and dangerous, as Egypt had to civilise these new immigrants. The invaders of Amratian, Gerzean, Elamite and Sudani races had brought their own gifts, but now Egypt had to do the training of the eager raw peoples who had inherited a lower civilisation.



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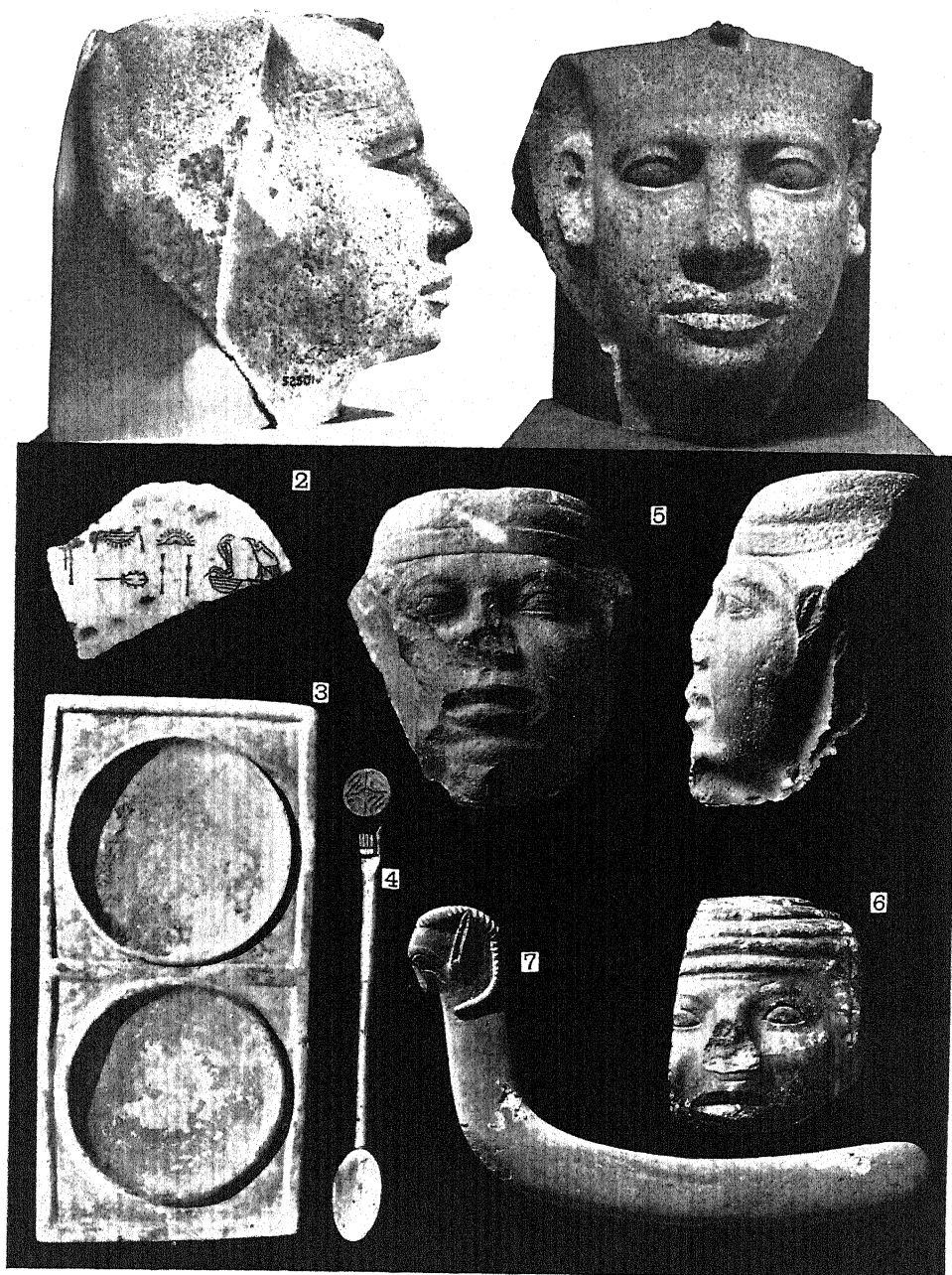
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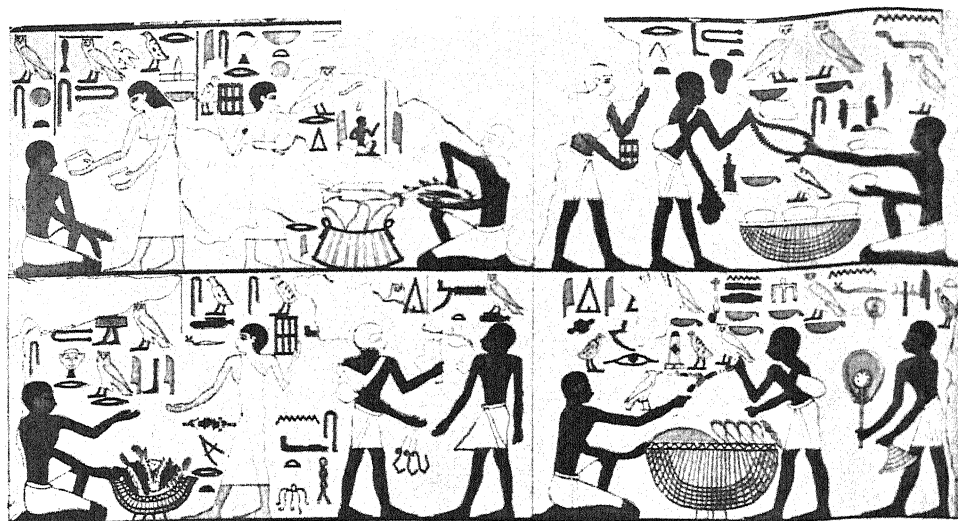
KINGS OF DYNASTY IV.

PLATE LVII

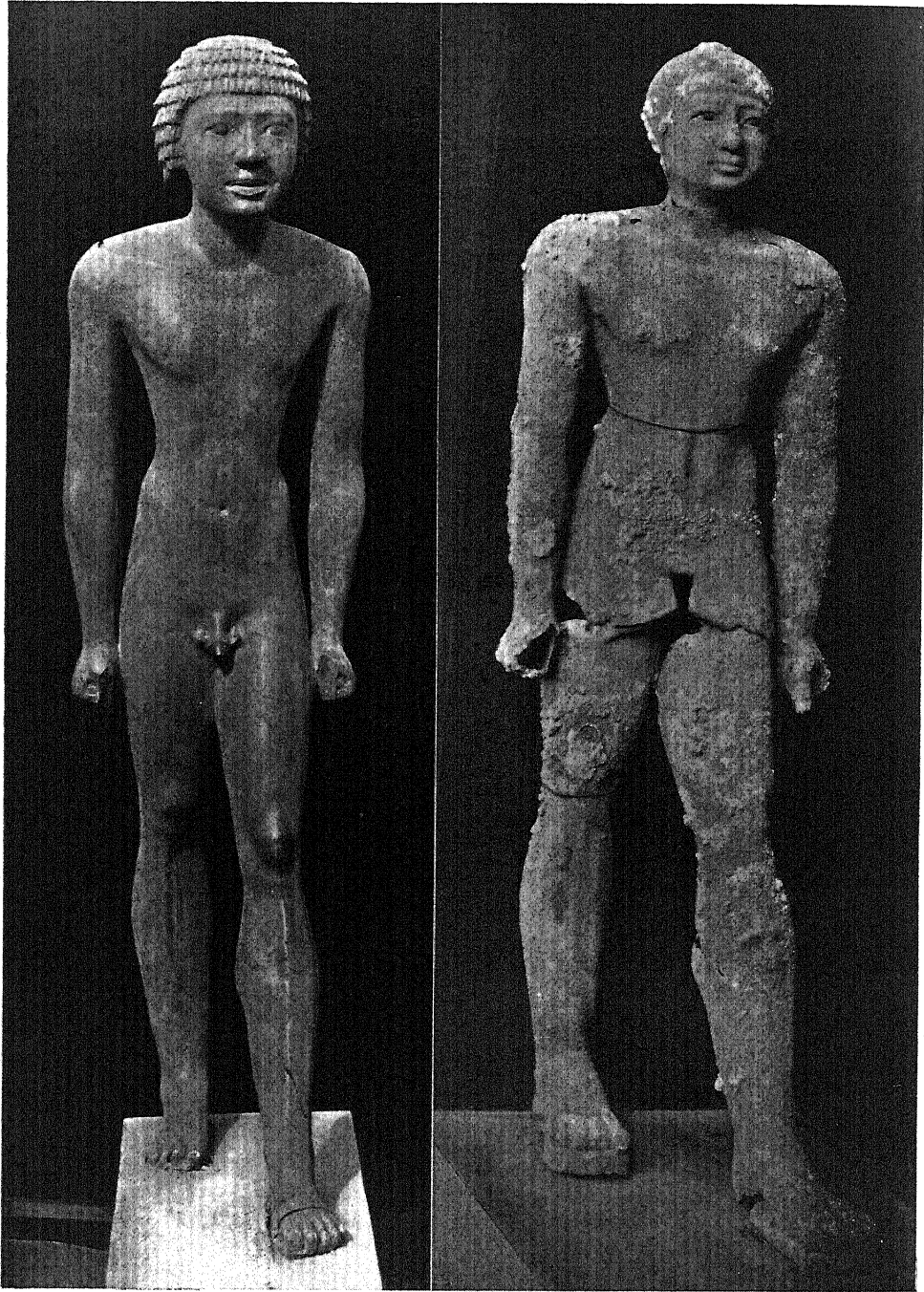


SCULPTURE OF DYNASTY V AND EARLIER.

PLATE LVIII



MARKET SCENES, FIELD COMBAT AND SIEGE, DYN. V.



STATUES OF MERY-RA-HA-SHETF, PEPY II, DYN. VI.

CHAPTER XIV

THE NORTHERN STORMS

81. *Outline of the Foreigners.*—Entering on the troubled period of the VII-XIth dynasties, which was an obscure part of Egyptian history, it will be well to review the general course of it. When that is before the mind, it is more practicable to realise the period in detail.

DATES OF DYNASTIES VI—XII ACCORDING TO EGYPTIAN RECORDS

<i>Egypt.</i>	<i>B.C.</i>	<i>Names.</i>	<i>Influence.</i>
VI dyn.	3330	Nefer-ka-ra	(Caspian)
VII	3127	Shema Neby	Caspian
VIII	3052	Khandy Telulu	Caspian
IX.	2912	Khety Uah-ka	Dacian
X	2812	{ Uah-ka Senusert	Galla
XI	2738	Antef	Tunisian
XII	2584	Senusert	Galla origin +Egyptian.

As an entirely independent study, comparable with the above dating and the regions of influence, I may quote a summary of Hrožny's views by Tallgren. "Among the powerful peoples of Asia Minor, there are at least three that arrived in Asia from or *via* the Caucasus. The first of them, the Asiatic Khatti, penetrated into Anatolia in the IVth millennium B.C. They possessed a culture which played a role in the later Indo-European Hittite empire. The second Caucasian

immigration wave brought the Hurri (the Kassites) into East Anatolia about 2000 B.C. They founded the Khaldish Urartu empire . . . and ruled over large parts of Northern Syria. The third immigrants were the Mitanni, who conquered the Hurri empire and formed the leading power in Eastern Asia Minor about 1600 B.C. . . . They worshipped the same gods as did the Aryans in India—Varuna, Indra, Mitra ” (*Antiquity*, 1933, 200).

82. *The Button Badges*. Pl. LX.—For the present we only regard the first of these Caucasus migrations, and the others will be noticed later. Whether these Khatti are the VIIth and VIIIth dynasty people, or whether they pushed those people before them down to Egypt, is questionable.

The first sign of the new people is the introduction of button badges (LX). They are always found singly, and were borne by a string round the neck. One with human figure was found with Adu I of Denderah (VI dyn.), another with cross pattern is also of VI dyn. Such show that the use of buttons brought in by foreigners was already known. In the VIIth and VIIIth dynasties, buttons became frequent (LX, 6-10), and can be exactly paralleled by buttons from Tepe Hissar (1-5) at the S.E. corner of the Caspian (LXII, 10).

Of the same form are buttons with a swastika (LX, 11-13). The origin of that emblem is unknown, and it first appears in Babylonia, and is known by 1100 B.C. in Italy (nos. 14, 16), and rather earlier in Crete, but the source remains uncertain.

The eight-pointed star is figured on a button in Egypt (19), exactly like the pattern from Bismya in Sumer (18).

A dozen buttons of large size (no. 22) have a uniform badge, an *onkh* sign between two falcons. This group is usual in the middle of a bilateral inscription on a lintel, but was not used on a smaller scale, and as a single group, by the Egyptians themselves. It makes a good motto, “Lives the Horus,” and, as in no. 22, is usually placed over a prostrate captive. This suggests that these were worn by a body-guard of foreign soldiers; unhappily all of them have been looted by tomb hunters, and their place and date are unknown. The next most usual type is the royal hornet (23, 24), which might also belong to guards.

Pl. LXI. No. 1, the cast of face of king Teta. No. 2, example of VIIIth dyn. sculpture, degraded from style of dyn. VI.

83. *Caucasus and Palestine, Dynasty VII.* Pl. LXI.—Now we must turn to Palestine and see what the history was there. We find an intrusive people who regularly used things of the Caucasian types—toggle-pins for fastening dress, and daggers with raised ribbing. These people were skilful rock-workers, making at ancient Gaza a great ditch with vertical outer side, around their camp, and cutting tunnels. It seems likely that they were the people who tunnelled for water in other camps, as Gezer and Megiddo. At Gaza, also, they began a large palace of rooms around a square court, but stopped halfway through, closing the court with a rough wall. This would well accord with the VIIIth dynasty people making a bridge-head for the conquest of Egypt, but stopping such large works on having already acquired Egypt. They totally suppressed the arts of the previous folk, and we no longer find the copper daggers and flat-based ledge-handle jars of the Copper Age.

On the jasper cylinder of Khandy, 2nd king of the VIIIth dynasty (LXI, 4), he appears as a Syrian king giving life to the Syrian, while the Egyptian stands in the background holding a papyrus stem. The ibexes and guilloche mark this as Syrian work. It is evident, then, that the Syrian had conquered and held Egypt as a joint kingdom with Syria.

Another king of dyn. VIII, Nefer-ka-ra Teruru, is also known on a seal, LXI, 3.

These invaders brought in daggers (no. 13), beautifully wrought with slender raised lines of pattern, in bronze, differing from the earlier daggers of the copper-users (no. 5). They also used toggle-pins to fasten the dress (nos. 6-12), which, like the daggers, belong to the east of the Caucasus (*Eurasia Septentrionalis*, vii, 180).

84. *Russian Sources.* Pl. LXII.—We now reach a subject which requires an expansion of the usual ideas of the history of art. In Upper Egypt, at Meir near Asyut, and at Qau, a profusion of patterns were used which have no prototypes in Egypt, and left hardly any following there (see *S. K.*, p. 300, and *P. A.*, i). They were due to some intrusive people, or perhaps a company of travelling artists. Where

could such influence arise? The "key" pattern at Antaeopolis (LXII, 2) is like the key pattern north of the Black Sea (LXII, 1), at Mezine, where it is stated as palaeolithic, found with mammoth bones. The region has already been considered as the source of the form of necklet with curled ends (LXII, 3); such distant communication is not thought impossible.

Next, the key pattern laid diagonally is found at Kolosvar (Klausenburg) in Transylvania (4) and at Bodrogkeresztur in Hungary; and these are like the diagonal key at Antaeopolis (5). See sketch map LXII.

The modern pattern of diagonal key is generally used by the Teriokha people, and extends to beyond Nijni Novgorod (*E.S.A.*, vi, 55).

Another complex pattern at Antaeopolis, LXII, no. 9, is also at Meir (no. 8) in Upper Egypt. This is evidently connected with the design on the dress of the Kefti people in, or next to, Cilicia (no. 7). This, in turn, may have a central Asian link, derived from it at Kashgar (no. 6). At what point these patterns were all united, by the artists who worked in Egypt, is not yet defined.

85. *Dorian Migration*.—The union, however, of both these elements of key pattern and spirals is evident in Greece, and is stated to be typically Dorian (Michaelis, *Kunst*, vi). The source of the Dorians was in the Balkan region (Bury, *Hist.*, 41), and it would appear that a definite locality is shown by the position of Doriones on the map, LXII, and marked (*Peut.*, Seg. V) between Oescus and Nicopolis on the Iatrum; the recorded length of road shows that the route followed up the Oescus before turning eastward.

The continuity with Kolosvar must have been through Dacia. The finely civilised and capable Dacians of the time of Trajan may well have been partly of Dorian origin.

Thus we are led to link south-west Russia, Carpathia, Dacia, Thrace and south-east Anatolia as the line of advance in 2900 B.C., while the Minoan and Aegean civilisations blocked a flow into Greece. The decay of this Greek block left room for a later flow with "Ukranian painted ware" (*W. P.T.*), which, about 1200 B.C., overthrew the Minoan-Aegean culture, and brought Dorians into the Peloponnesus.

Sayce regards the fall of the Hittites as due to an advance of tribes related to Dorian Greeks, by 1200 B.C. (*Pal. Ex. F. Report*, 1909). The cups with stem and foot, in Egypt about 3000 B.C. (*G.R.* xiii A) are likewise found in Iraq at Chagar Bazar (see map, C.B., LXII), near the Kefti region, and were, therefore, probably brought into Egypt in the same manner as the Kefti pattern (LXII, 7).

86. *Long Pluvial Age, Palestine.*—This age of 2900-2000 B.C. in Palestine was marked at Tell el Ajjul (ancient Gaza) by heavy rainfalls. The ruins of the great fort of the VIIth dynasty were covered by 3 feet of brick clay washed from the upper part of the fort. The old tunnel was filled up, and across it a watercourse was cut down at least 8 feet. The earth was dense black mud, derived from the capping of the sandstone *tell*. All of this shows a long interval of time elapsing between the VIIth and the XIIth dynasties.

87. *The Galla Penetration.* Pl. LXIII.—It has long ago been remarked that the black sphinxes, later appropriated by the Hyksos, approximated to the Galla type of Abyssinia. Two comparisons are here given (LXIII, 1, 2, and 3, 4), which show the resemblance.

This starts an enquiry how the Galla connection could thus appear on monuments. In the clearance and planning of the rock tombs at Qau, Antaeopolis, the peculiar plan of those tombs, with great halls and small chambers annexed, was observed to be closely parallel to that of the later Nubian temples (LXIV). In both tomb and temple the chief work is in the solid rock, while the forecourt is of masonry constructed in front of it. Another peculiarity was the hammer-work excavation of one tomb, which had evidently been done with stone balls, as in the Aswan granite working, and this implies a southern connection.

88. *Ancestry of Senusert.*—In the tomb of prince Uah-ka B at Qau, in an inner chamber, is painted a scene of the son of Uah-ka, named Senusert; there is no cartouche. As the Uah-ka family were of about the IXth or Xth dynasty (the name being unknown either in the VIth or the XIIth dynasty), this implies that the XIIth dynasty Senusert family descended from the Uah-ka family. Here we have, then, a link between the Galla type on the sphinxes and the XIIth dynasty. The separate identification of these sphinxes follows further

on. The XIIth dynasty was undoubtedly descended from Amenemhat, the great vizier of the XIth dynasty. It seems, then, that he married the heiress of the Uah-ka family, as stated in the pseudo-prophecy, "A king shall come from the south whose name is Ameny, son of a Nubian woman." She called her son by the family name Senusert, and he was the founder of the XIIth dynasty, according to Manetho. Waka is the god of the Gallas (*Anc. Eg.* 1927, 41).

The skull form of the Tigre people (south of Adawa) leads to the conclusion that "there is a close relationship between the Tigre skulls and middle dynastic Egyptian types" (*Biometrika*, xvii, 8, 43).

The absence of Uah-ka names in the XIIth dynasty prevents dating the Qau tombs later; two subsequent occurrences of the name are therefore due to XIIth dynasty offerings at the ancestral tombs.

89. *Soul Houses*. Pl. LXV.—Probably at this period the presentation of groups of servant figures ceased in the tombs, and a custom arose of placing at the side of the grave a pottery model of a house, for the habitation of the wandering soul. The value of these models to us is for showing the peasant architecture of the time. The simple shelter, no. 1, no more than a tent, was elaborated with ventilators and a roof platform, no. 2. The inside of the house, no. 3, had a place for the corn grinder under the stairs, and in the bedroom a couch and a forked stool convenience. In no. 4 the arching of the roofs is seen, and no. 5 has a double storey with ventilators, and a stairway to the roof (*G.R.*).

90. *Tunisian Antefs*. Pl. LXVI.—The next change was the Antef age of the XIth dynasty, which only reigned as overlords for 43 years. The clue to their origin is in the peculiar royal tombs at Qurneh, which were arranged by hollowing out, in the rock, a large square area for a king and placing his burial and those of his court in chambers cut in the rock face of the square (*Qurneh*, 3). This is exactly the form of the rock-dwellings in Tunisia, an example of which is in pl. LXVI, 2, 3. The name Antef occasionally appears about the VIth-VIIth dynasty, and in the XVIIth dynasty, which shows that the source of the XIth was not distant from Egypt.

There were, no doubt, various races in Libya, but those nearest to Egypt will be best seen in the captives taken in the Vth dynasty. The men have slightly aquiline nose and short beard, and wear only

a girdle. The women wear the girdle, short tight drawers, and a chest belt. The children have only the latter. This, the national dress, was put on like the band common on late terra-cottas, and this form continued in late Roman gold-work (Dennison and Morey, *A Gold Treasure from Egypt*, p. 150, xxxix). It was pulled up high under the arms, and the surplus then turned back over the head, to form a sort of harness. An amulet knotted cord always hangs round the neck (LXVI, 1).

We have now reviewed the various connections of the VIIth-XIth dynasties, and seen that there is substantial reason for the diversities in Egypt, from the different sources, Caspian, North Europe, Abyssinia, and Tunisia, while Egypt was a prey to each of them in turn.

91. *Scarabs, Pottery, Games*. Pl. LXVII.—The decoration of scarabs progressed in the IXth dynasty. The scroll (known in the Vth) was continued askew (no. 1), the lotus group (4, 5, 6) was developed, and with the vulture adopted to denote the double rule of Egypt (no. 4); the symmetric scroll border (no. 8) was first attempted.

In pottery, new forms came in with polygonal dishes (nos. 14-18), carried on from the pentagonal stone dishes known in early dynasties. Here the cup was a new form (nos. 9-13, 16, 17) which did not take root; the source of it is not recognised, but there are also stem cups at Tell Chagar Bazar at 3000 B.C. on the Khabur (LXII, 10 C.B.), about contemporary (*Iraq*, 1936, figs. 2, 18).

A popular game (nos. 19-23) spread over Egypt, Palestine, and Elam; originally it was merely rows of peg-holes (no. 19) in dyn. IX; by dyn. XII it was still in the same stage (no. 20). But it was humanised in Palestine with a rough figure form (no. 22), which travelled on to Susa (no. 23); see *Sed.*, xxii. It was played by two players, each had five pegs, one set with dogs' heads, the other jackals' heads, in the board (no. 21). The count was up the side, down the middle, up the middle and down the other side, all marked off in fives for ready counting. At two points there was the luck of a bye-pass. With five pieces against five, it must have been an exciting game of positions and forfeits. The figure of no. 22 has been published as an idol, but the origin in the game is obvious. For other examples, see Gadd in *Iraq*, 1937.

92. *Wands, Foreign Pottery.* Pl. LXVIII.—Some unusual, probably foreign, styles about this period need notice. Nos. 1, 2, pieces of magic wands, perhaps horoscopes of an individual. They are fully discussed, with a couple of dozen figures, in *Objects of Daily Use*, 39.

No. 3, coarse pottery dish, incised; a large number of these in dyn. XII have no connection with other work, and their origin is unknown.

Nos. 4, 5, drab pottery jars with incised lines copied from cordage; these are of about XIth-XIIth dyn., but not well dated.

No. 6, a similar pattern usual at Kish at 2800 B.C., is comparable with these, and may be the origin of Egyptian forms (*Anc. Eg.*, 1926, 102).

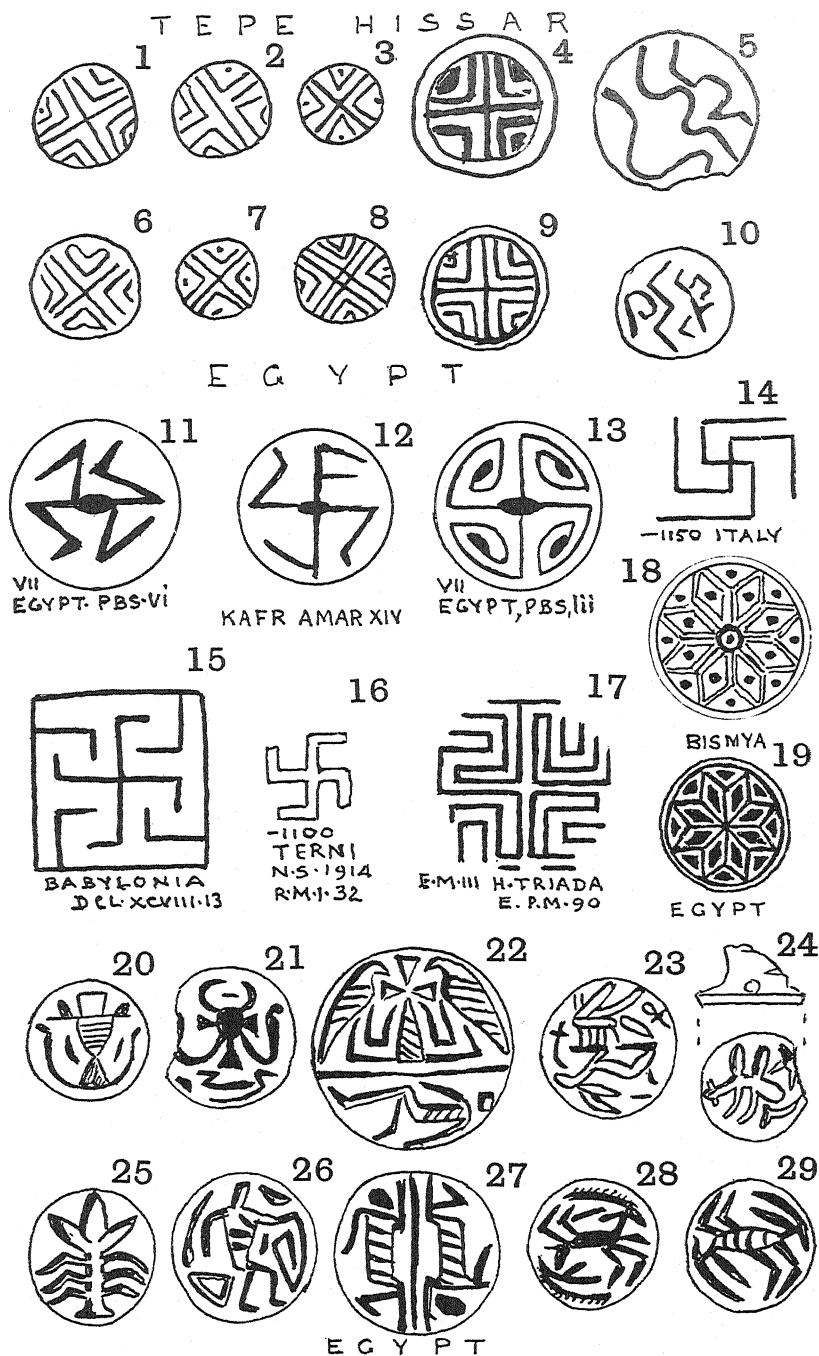
Nos. 7-11, Decorated pottery from rubbish heaps of dyn. XII at Kahun. For some years authorities rejected these as late, until the finds in the Kamares cave in Crete brought the dating into harmony with Egyptian evidence. These, therefore, show Cretan trade of mid Minoan age.

No. 12, vase of dyn. XII from Kahun, of unidentified origin.

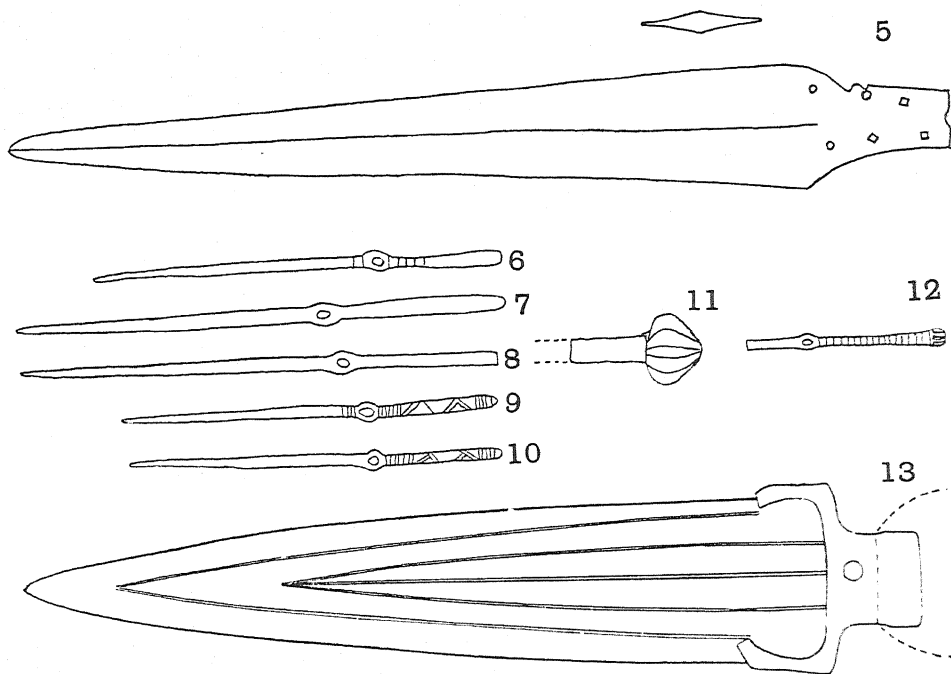
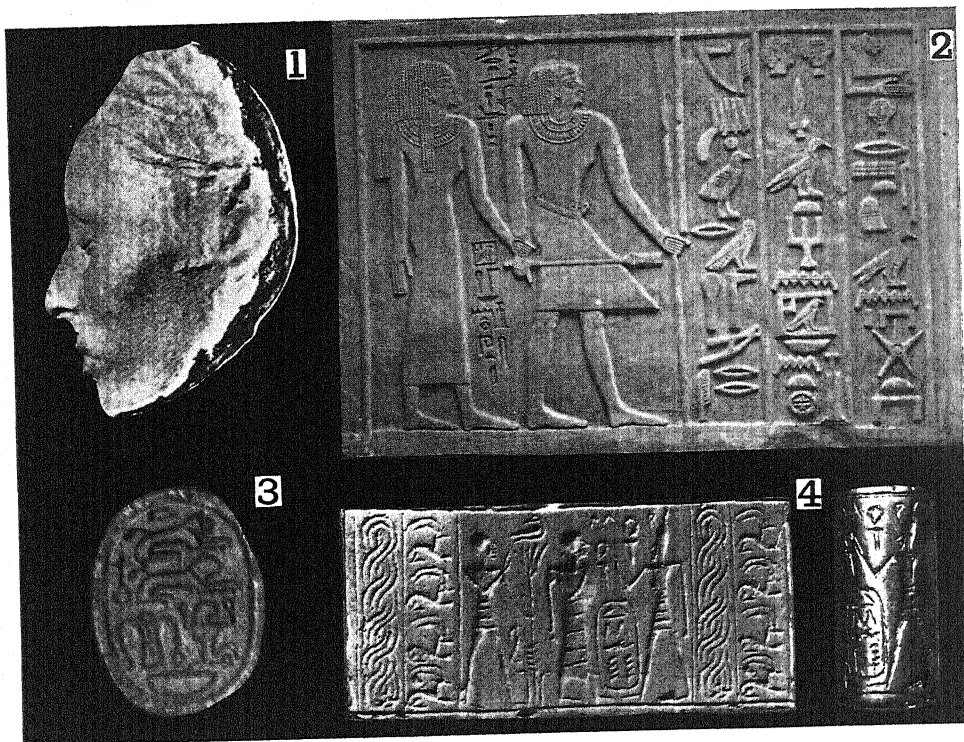
93. *Portraits, Dynasty XI (?)*. Plate LXIX.—There remain two portrait figures of the dark age. One (LXIX, 1) is a splendid figure of hard wood. The head is of unusual proportions—the short wide face, the high cheekbones, the low square forehead, treated in a vital manner. The other is the statuette of Em-saht, prince of Siut (2), which though far lower in type is yet similar in various ways. As there is no trace of Galla in them, they are more likely to be of the XIth dynasty.

All of these political and artistic changes seem to have borne little relation to the general type of the people from the Vth to the XIIth dynasty. There were not convulsive shifts of population, but only changes in the ruling families and their retainers.

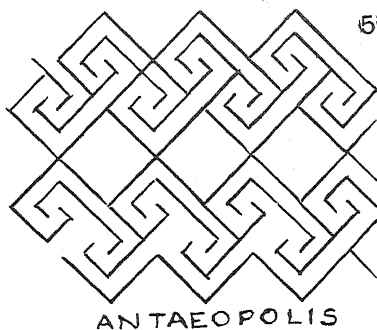
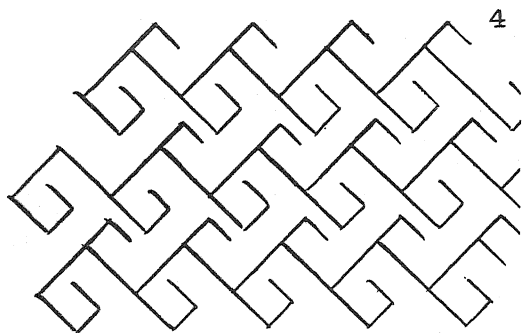
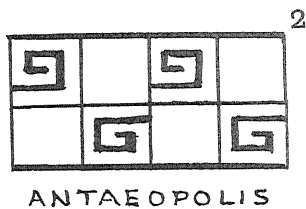
PLATE LX



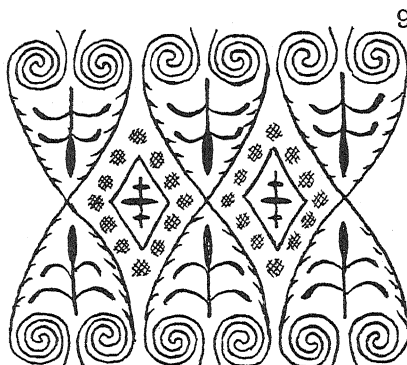
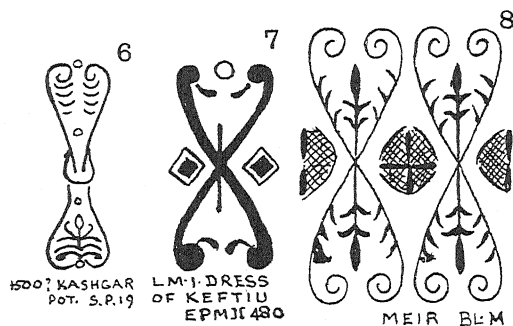
BUTTON BADGES, DYN. VII.



SCARAB, CYLINDER, DAGGERS, DYN. VIII.

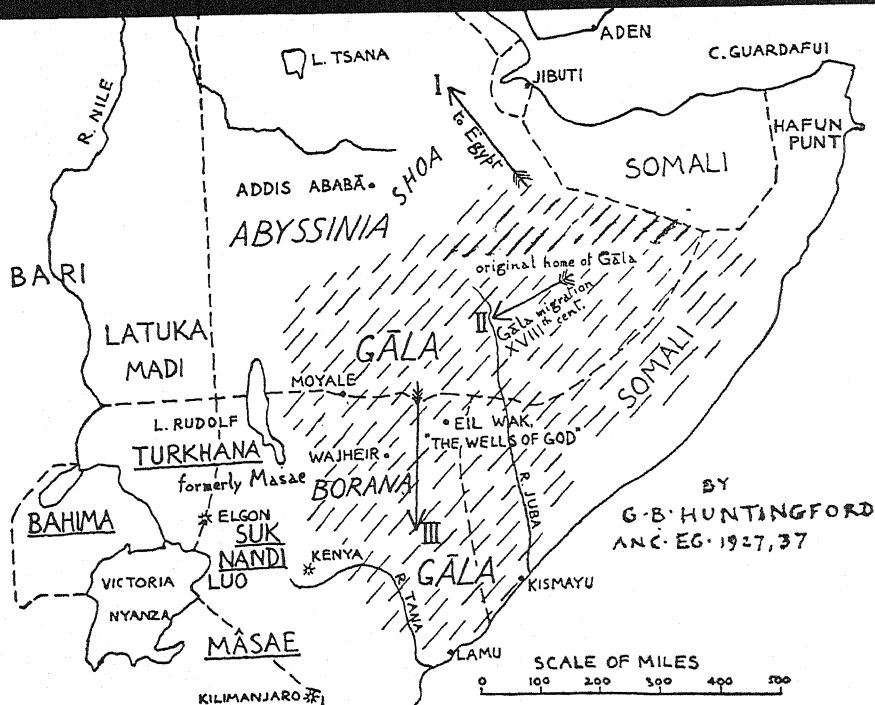
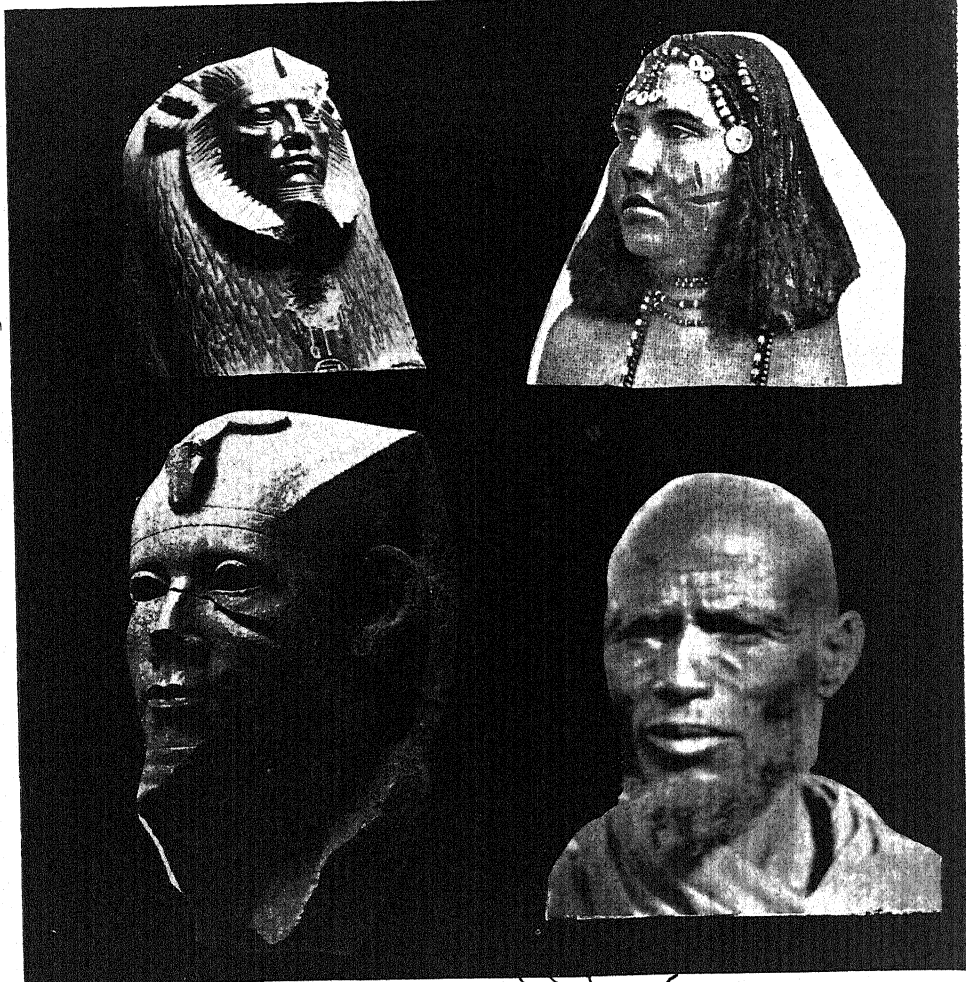


KOLOSVAR 340 m. S. of BREST LITOVSK



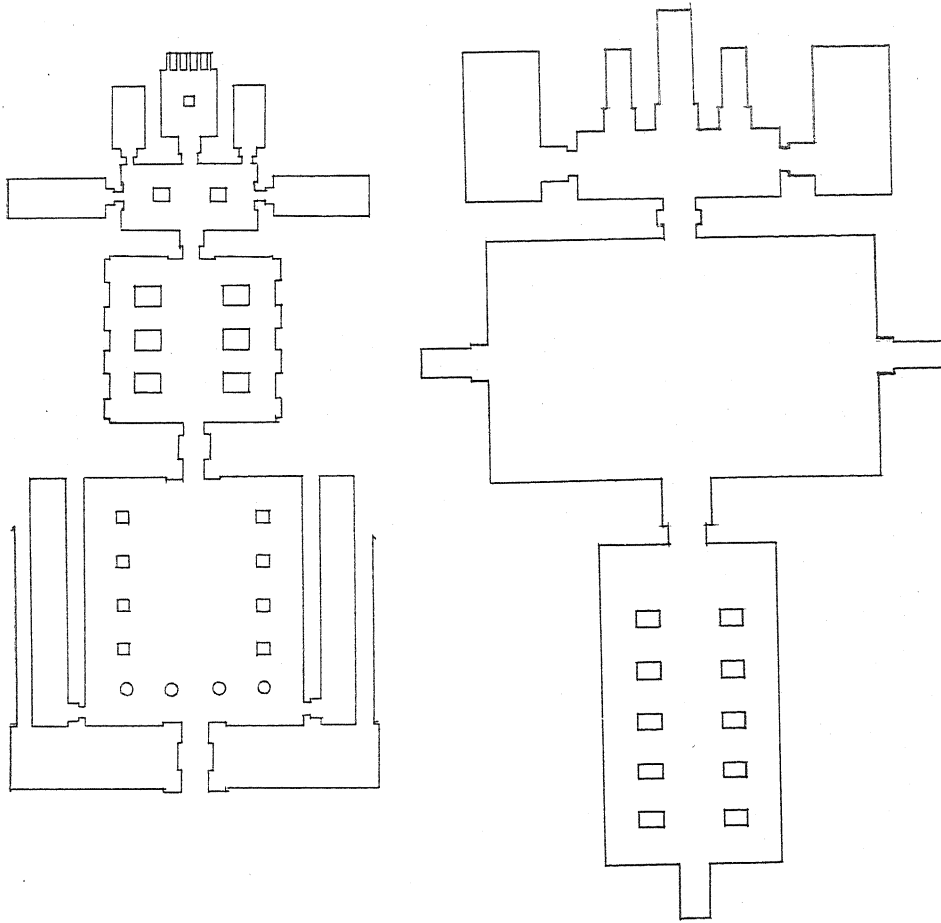
DACI-DORIAN DESIGNS IN EGYPT, DYN. IX.

PLATE
LXIII

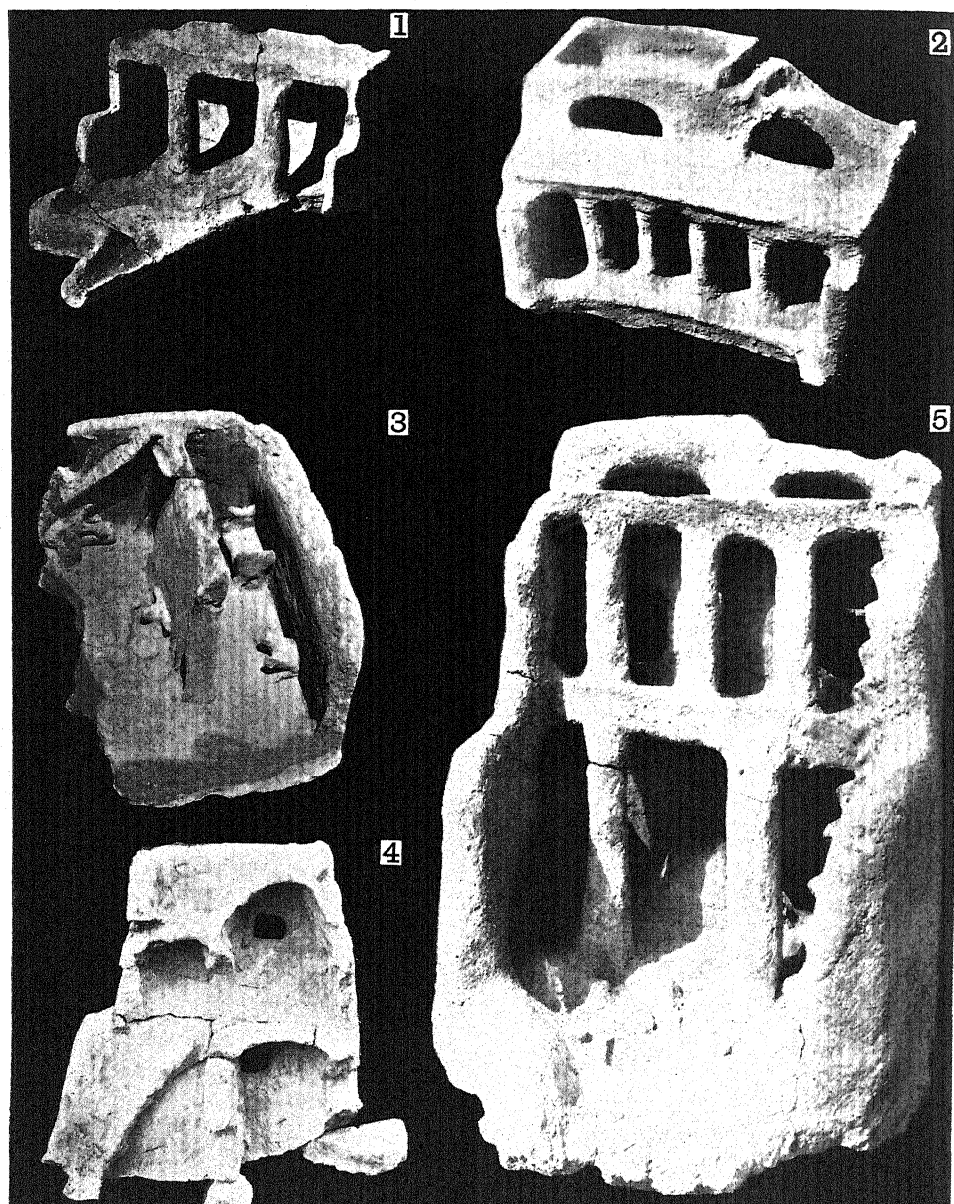


GALLA TYPE IN SPHINXES, DYN. X.

PLATE LXIV

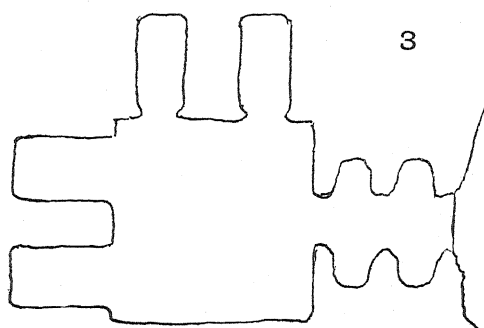
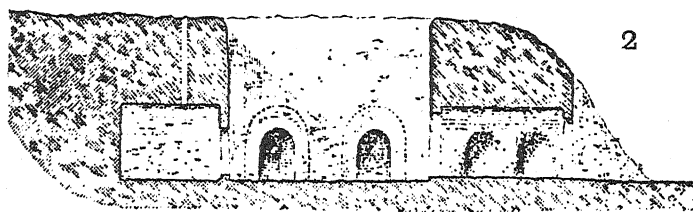
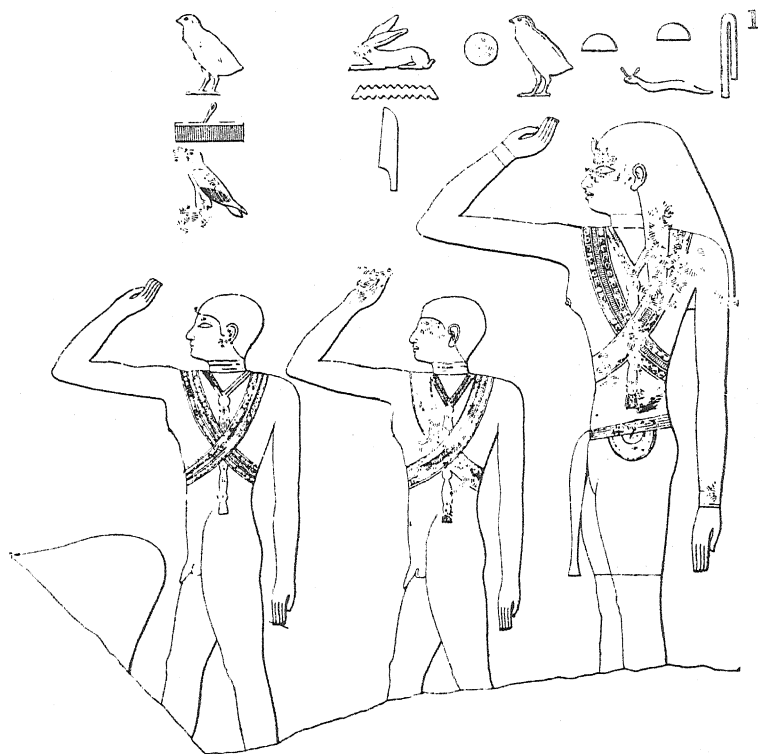


NUBIAN TEMPLE AND ANTAEOPOLIS TOMB.

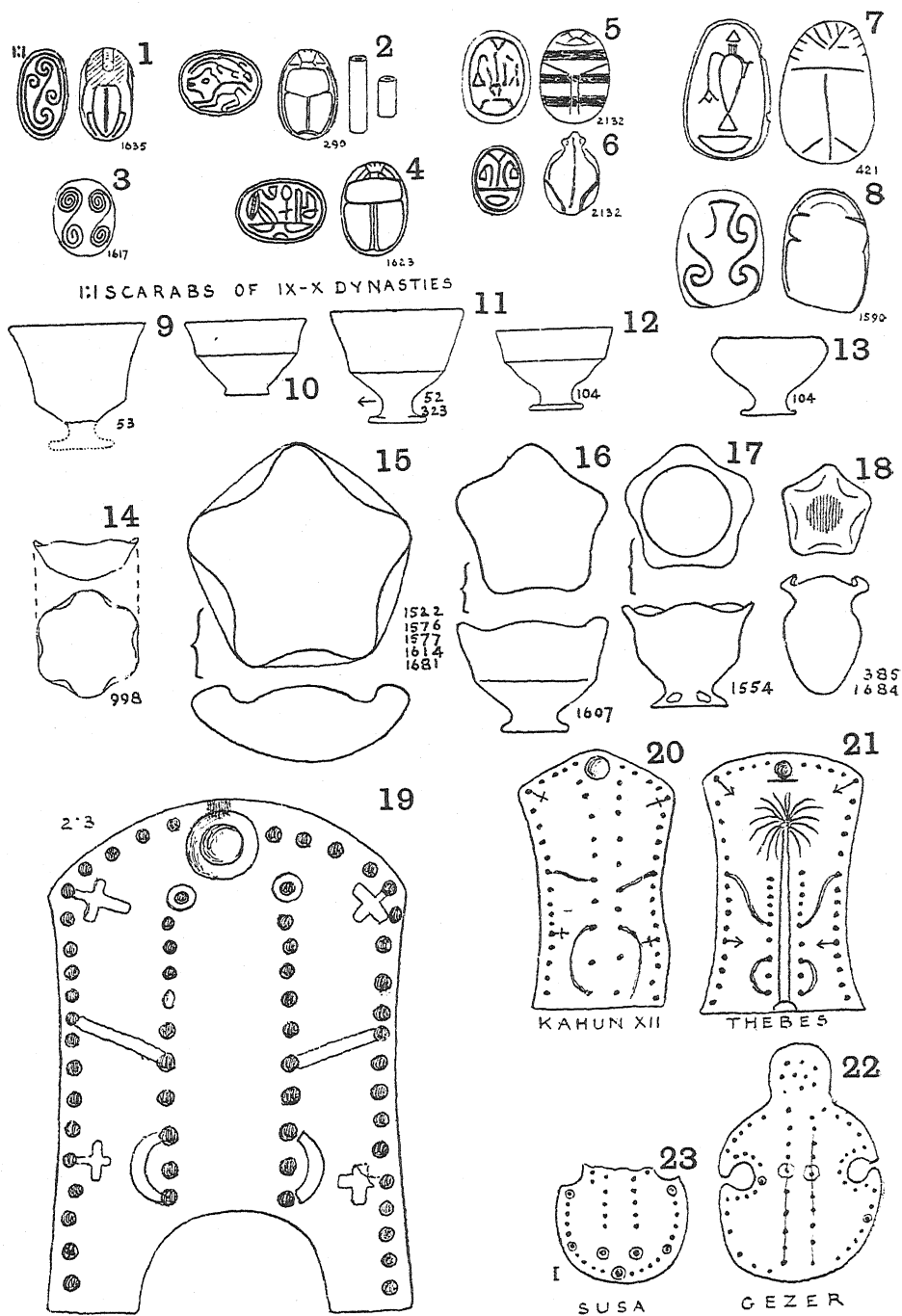


HOUSE MODELS FOR SOULS, DYNs. IX-XI.

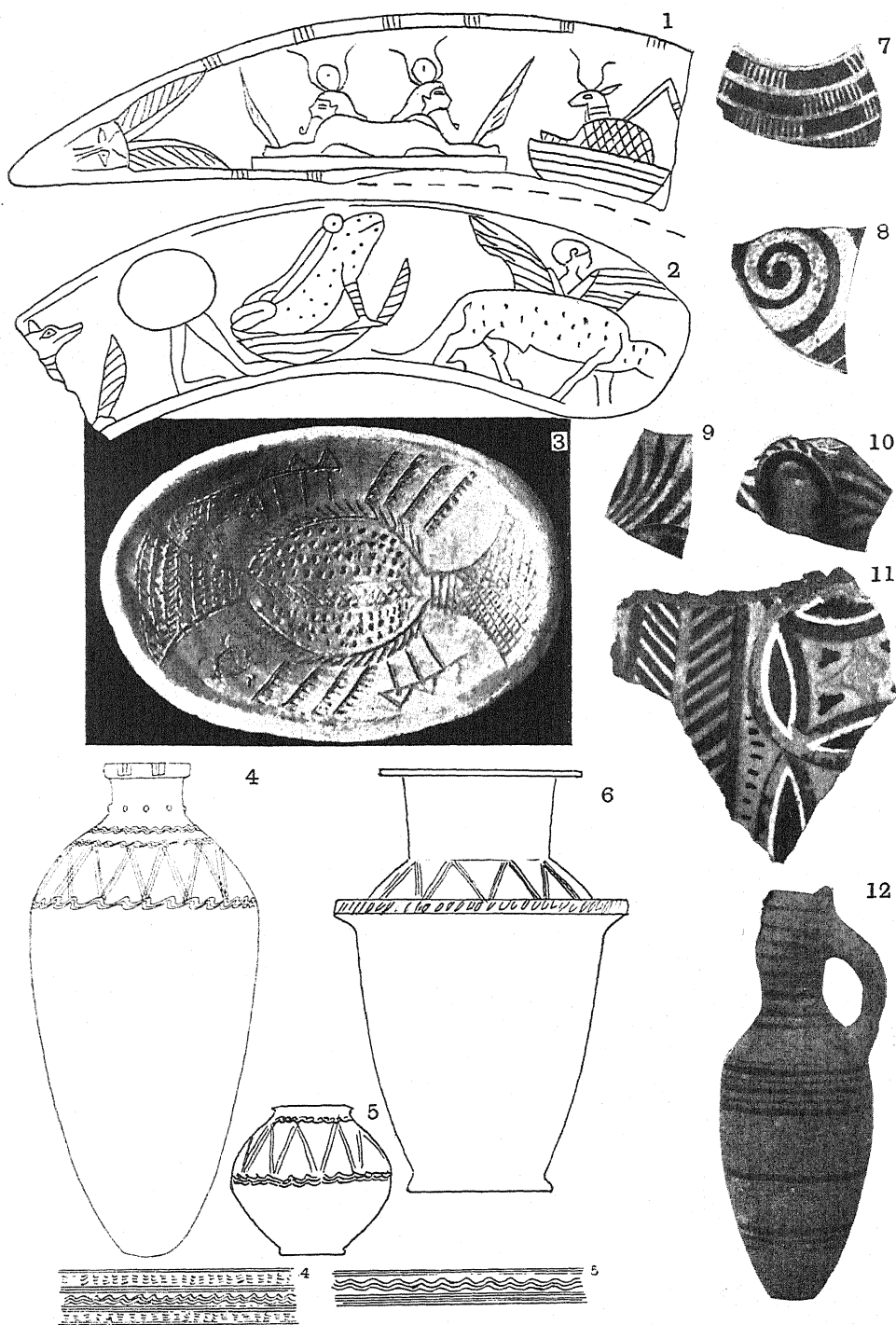
PLATE LXVI



LIBYANS AND ROCK COURT DWELLINGS, DYN. XI.



SCARABS, POTTERY, GAME BOARD, DYN. IX-X.



WANDS, FOREIGN POTTERY, DYNs. XI, XII.

CHAPTER XV

THE XIIITH DYNASTY

94. *Portraiture and Ancestry*.—On reaching the XIIth dynasty, we are liable to error owing to the irresponsible manner in which unnamed statues have been assigned. The many portrait heads now absurdly attributed to Amenemhat III are so different, that we can only trust to those figures which have the name on the block. The subject is fully stated in *Anc. Eg.*, 1929, 82. Here we will only note the best and most desirable figure of each king, referring to Evers, *Staat aus dem Stein* :—

Amenemhat I: round, full face, Evers, 17. Cairo.

Senusert I: wide chin and face, Ev., 44. Brit. Mus. (LXIX, 3).

Amenemhat II: short face, large eyes, smiling, Ev., 50. Louvre.

Senusert II: only a small profile (see *Lahun II*, xviii).

Senusert III: marked by great deterioration of health, Ev., 80. *Anc. Eg.*, 1929, 17 (LXIX, 4).

Amenemhat III: poor vitality; young, Ev., 103-4; old, Ev., 131. Cairo (LXIX, 5).

A still feebler example is probably Amenemhat IV (LXIX, 6).

How much did the physiognomy of this royal type owe to ancestry?

Two statues of queens in this dynasty exemplify two very different types. One of limestone (Abydos) has a long type of face (Ev., 51), and the other (Ev., 72-75) of granite, with massive wig, has a round face.

In the XIIIth dynasty the statues of Neferhetep I have a high and refined face with delicate lips and short chin (Ev., 143), and those of Mermashau (Ev., 148) a high face of coarser type, with high cheekbones, quite unlike any of the earlier statues of kings, and suggesting a foreigner who had risen to be a general and thence reached the throne.

The changes of skull measures between the VIth and XIIth

dynasties show a minority shorter in L and W, shorter also in BN, but long in NA, therefore less prognathous and longer in face. The minority had a head of smaller, but better, type. Whether this was due to Caspian, Russian, or Tunisian stock, we cannot yet distinguish. The size or volume of head depends not on ability but largely on climate or temperature; the Eskimo having a much larger skull capacity than the Hindu is a case in point.

95. *Character of Civilisation*.—The character of the XIIth dynasty is a new composition of influences. In the IVth dynasty, grandeur and personality were chiefly shown; in the Vth, action in peace and war; in the VIth, the beauty of youth; but in the XIIth, the perfection of accuracy and of refinement of design (LXX). The accuracy of working sarcophagi of red granite produced planes with only $\frac{1}{400}$ inch error. No other age equalled the refinements of dynasty XII.

There was also a greater attention to dating. Even private monuments were often dated in reigns, and the overlap of a king and his coadjutor succeeding him is given by double dating in both reigns. Genealogies are more usual than in other times.

96. *Precision of Work*.—The aim was precision in every respect, rather than personality or emotion. The workmanship therefore strikes by its beauty of finish rather than by strength of emphasis.

Precision is shown in the lay-out of Kahun, a town constructed for the workers at the pyramid of Lahun. The thick outer walls were square within 1° , two straight streets ran for $\frac{1}{6}$ mile; 8 mansions, alike in plan, each with 50 chambers and halls, were 220×138 feet. There were over 250 houses containing 5 to 9 rooms, besides a large area now denuded bare. In the IVth dynasty the workmen at Gizeh pyramids were housed in long undivided galleries, $9\frac{1}{2}$ feet wide; the mile and a half of such galleries might house 4,000 men. The XIIth dynasty housed the men's families decently.

Pl. LXX, no. 1. The delicate taste of the age is seen in one of the royal coronets, in which the maze of little florets inlaid with red carnelian were held together by hair-like wires to form a uniquely beautiful wreath. This is from the tomb of Khnumt, reign of Amenemhat II. The design became overloaded on the pectoral of Senusert

THE XIITH DYNASTY

III, no. 2, where the king as the Mentu hawk tramples on his enemy. In no. 3 the better taste under Senusert II has placed the royal falcon as supporters to the name, each holding the emblem of myriads of years. The skill in practical design is seen in the way in which all projecting points are secured, and the whole open framework is well braced together. The wing surfaces are covered with minute inlay for the feathering.

97. *Deterioration.*—Looking at the art, the finest period was that of Senusert I; thence there was a steady deterioration of work through dyn. XII and onward to dyn. XIV. The physique of the royal family went through a similar course of deterioration, breaking down under Senusert III and ending with the weaklings Amenemhat III and IV. The long reign of 46 years, like the long terminal of the VIth dynasty in 95 years' reign, was the wreck of the country, as offices fossilised and no fresh energy came in to direct.

CHAPTER XVI

HYKSOS AND VASSALS

DATES OF DYNASTIES XII—XVIII ACCORDING TO EGYPTIAN RECORDS

<i>Egyptian</i>				<i>Hyksos</i>			
XII	-	-	2584—2371	XV	-	-	2371—2111
XIII	-	-	2371—1918				
XIV	-	-	1918—1734	XVI	-	-	2111—1593
XVII	-	-	1734—1583				
XVIII	-	-	1583—1318				

98. *Dynastic History*.—We must turn now to the dynastic changes. A difficulty has long existed about the Egyptian statement of the period of the XIIth-XVIIth dynasties, which extended the Egyptian history too far to fit other considerations. The study of the scarabs has resolved this, by their details of XIIIth dyn. being the same as those of XVth dyn. age (pl. LXXI). The total of years of XIII, XIV, and XVII is equal to the total of XV and XVI, allowing 10 years for the reign of Ka-mes (*Anc. Eg.*, 1929, 33). This agrees with their being contemporary. The very short reigns of the XIIIth-XIVth dynasties are due to the kings being the viceroys of the Hyksos overlords, averaging 6 years in the XIIIth and $2\frac{1}{2}$ years in the XIVth dyn. while, at the same time, the Hyksos averaged 47 years and 16 years respectively.

99. *Hyksos Origin*.—The Hyksos were a sturdy race of horsemen, 5 feet 2 inches in height, who by incursions from the east subjugated Palestine and Egypt. They brought with them the dagger type with raised ribs (LXXII, 35) and the toggle-pin (LXXIII, 45-51), which are both characteristic of the Caspian side of the Caucasus (*E.S.A.*, vii, 88, 105, 130, 135, 141). These were similar to the objects brought by the VIIth-VIIIth dynasties, and they came from the region of the Kur and Iora rivers (Pl. V), whence also originated the mythologic

names used by the Egyptians (map *E.S.A.*, vii, 180; *Anc. Eg.*, 1926, 41). The toggles of humble copper developed, with the wealth of Egypt, into elaborate ornaments of gold (LXXIII, 45-48).

100. *Early and Late Hyksos*.—The Hyksos occupation was divided into two dynasties, the XVth of 6 great kings, and the XVIth of 32 "Hellenic shepherd kings." Hellenic is the translation of the Egyptian Ha-nebu, "lords of the north," *i.e.* the Mediterranean. In accord with this, there are 7 kings who add *mu* or "sea" to their names, as on the scarab of Ykho (LXXIV, 74). The list of names is in *Anc. Eg.*, 1931, p. 4, and two more, found since, are Ysan and Ydu Set (*GZ* I, 45 and *GZ* IV, 1). These make up 38 names in all (see Appendix I), but a few of them are probably of dyn. XVII. The full number of 6+32 names is therefore not quite complete yet. In the list a general distinction of relative order is given by the course of degradation of pattern. The 6 early kings are distinguished by having foreign names and titles. The Ra name of Shesha came to light in this season's digging.

101. *Hittite Overlords*.—For its political significance, we should note the scarab in pl. LXXIV, 75. It shows a king of Egypt (Hyksos) doing homage to a Hittite overlord who has the regular royal dress, with the title "good king" (Hittite) in place of the Egyptian "good god." The signs between the figures, *Kho nub da kheper*, are perhaps a personal name. This evidence of Hittite rule over Syria was recovered, worn almost flat, and black with dirt, from the necklace of an Arab woman; it is now in the Institute of Archaeology, Regent's Park.

102. *Hyksos Portrait*.—We may now review the objects which the Hyksos brought into Palestine, as showing the ideas and abilities of their times. Pl. LXXII, no. 28, flying falcon of gold, with granular work, which gives a brilliancy in all lights. It is not known yet where this granular gold-work was made, but it was imported into Egypt in dyn. XII and later found in Palestine. No. 29, gold badge of a star with loop for hanging to a necklace. No. 30, pottery figure which is unlike any of the people represented in Egypt, and being found in a deposit of the Hyksos period is probably of that people. It would fit to the style of that race.

103. *Political Cylinders*. Pl. LXXII, 31.—Haematite cylinder repre-

senting a lion and a wolf contending for a calf between them, and a Hittite eagle descending on them. This may be explained by another cylinder, no. 32. Here a man, helpless on the ground, is threatened by a lion (Hyksos), which is ramping forward but restrained by a Hittite figure with long pigtail. He grasps the lion's tail and holds out the goat emblem of Ea, the god of wisdom, to protect the man. Meanwhile on the other side is a winged figure coming to protect him, wearing the crowns of Egypt on the falcon head of Horus.

The meaning of the two cylinders is alike. Palestine as a calf or as a fallen man is contended for on either side by opposing powers. The function of the Hittite is protective in both examples. The Hyksos seem to be the lion, restrained by the Hittite overlord. These are native examples of political cylinders, for which I cannot find any parallel.

104. *Hyksos Games and Weapons*. Pl. LXXII.—No. 33, two draughtsmen found with a board of squares, likewise of ivory. No. 34, two dice of the truncated pyramid form usual in Palestine, with only four numerals. No. 35, bronze dagger with raised ribs of the Caucasus type. No. 36, bronze dagger with inlaid handle of the Luristan type.

No. 37, two Irish gold earrings of the torque-like twisted form. Thus trade brought products from Persia and from Ireland in the Hyksos age.

105. *Hyksos Gold-work*. Pl. LXXIII.—No. 38, head with tall Hittite headdress. No. 39, earring inlaid with blue glass, surrounded by granular border. A pair of larger size were also found. Probably all this gold-work was drawn from other peoples, and only used by Hyksos. No. 40, relief decoration of lotus pattern. Nos. 41, 42, crescent pendants. Nos. 43, 44, earrings with granular clusters on gold plate.

No. 45, toggle-pin twisted, with agate head. No. 46, twisted toggle-pin. No. 47, toggle with beaded stem; ball top lost. No. 48, another, with amethyst ball. Nos. 49-51, stages of degradation of toggle-pin. Nos. 52-56, Irish twisted earrings. Ireland being a principal source of early gold, its products were widely traded.

106. *Hyksos Scarabs*. Pl. LXXIV.—No. 57, scarab of Ant-her,

prince of the deserts. No. 58, scarab of Semqen, prince of the desert. No. 59, scarab of Khyan, prince of the desert. Nos. 60-63, scarabs of Khyan, Yegeb-arhu, and Yakeb-her, including the name of a god Yakeb or Jacob. No. 64, form of the Hyksos fortress of Yehudiyeh in the Egyptian Delta; the wide earth bank has a smooth plaster face, too steep to stand on. The entrance was over the bank flanked by terraces, for archers to resist an enemy. A similar fortress was at Heliopolis (*Hyk. and Isr. Cities*, ii-iv, *Heliopolis*, i-iii).

Nos. 65-68, bronze toggle-pins. Nos. 69-71, small glazed vases. Nos. 72, 73, cylindrical jars of thick hard pottery of North Syria, like those from Mishrefa-Qatna. No. 74, scarab of Yekha of the sea, described above. No. 75, scarab of Hyksos king doing homage to a Hittite king. Nos. 76, 77, earrings with drop pendant.

All of the objects on pls. LXXII-III, and lower half LXXIV, are from my work at ancient Gaza. LXXII, 36 is of Luristan.

107. *Hyksos Burials and Horses*.—It only remains to notice the burials of the Hyksos. While the Canaanites buried bodies spread out with limbs apart, the Hyksos composed bodies at full length. The horse was buried in connection with family tombs, at the bottom of a pit, with human burials on ledges or loculi around the sides, or placed in a single grave together. The horse was sacrificed at a foundation ceremony, laid in a deep pit, and also horses were consumed in a feast and the picked bones left under the building (*GZ* II, 1).

The Hyksos had strange customs of dismemberment. A horse at the bottom of a funeral pit had only one leg remaining. In a large pit there was a mixture of bones, a whole arm but no scapula, a whole leg with piece of pelvis, many skulls but no vertebrae, legs and skulls of ass, gazelle, horse, and ox. A similar patch of bones contained pottery of pre-Hyksos age, perhaps of the VIIIth dynasty. Diodoros states that the Balearic people cut up bodies and packed pieces in jars, but such partition is rare.

108. *Pan-Grave People*. Pl. LXXXV.—Contemporary with the Hyksos and their Egyptian vassals, there was a flow of Nubians into Upper Egypt. Their pottery is partly Egyptian (1-5), but some of the cups were barbaric, marked with diagonal lines (nos. 6-14). With these were various small objects of the XIIth dynasty (as no. 11).

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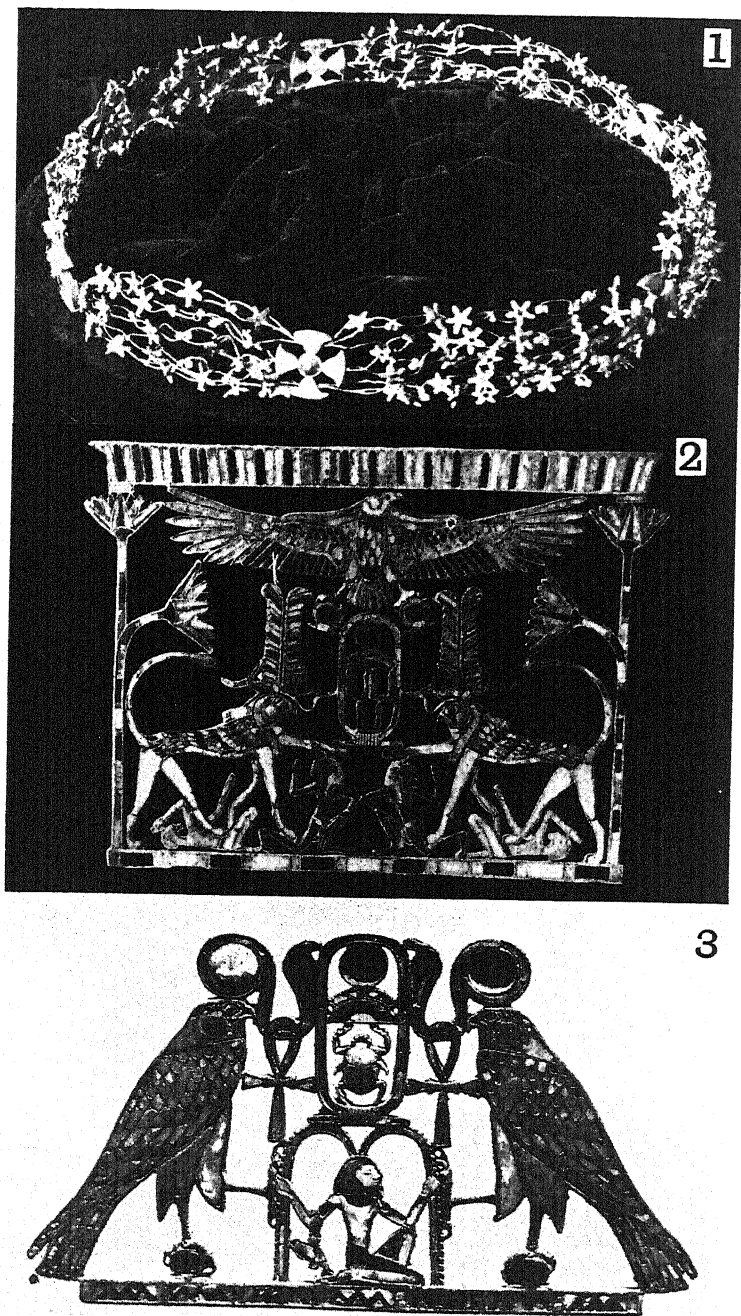
There were many frontal bones of ox and sheep, spotted over with red. Also animal bones mixed with human bones anciently, as strings of beads were wound round the clavicle and leg bones. Often there were three armlets on each arm made of strips of shell side by side (no. 15). Beads are of white shell, and some of blue or black glaze. These people were spread along the western edge of the valley as far north as the Fayum (*D.P.*, 2-9). The shallow circular graves are known as "pan-graves."

Influence from the north appears about the XVIIth dynasty in the *necef* unit of weight. A gold necklace of unique form for Egypt was found at Qurneh (*Q.* pl. XXIX), and the parallel form in more elaborate detail is seen in three gold collars found in Sweden (Montelius, *Civ. Swed.*, 128). The weight standard of the Egyptian is 158.6 to 162.9 grains, of the Swedish 155.9 to 158.7 grains. Both of these are on the *necef* unit. That unit is found in the weights of tribute to Egypt from North Syria, Naharain and Assyria. Until some intermediate examples of this form become known, the connection is obscure.

PLATE LXIX



KINGS OF DYNASTIES XI, XII.



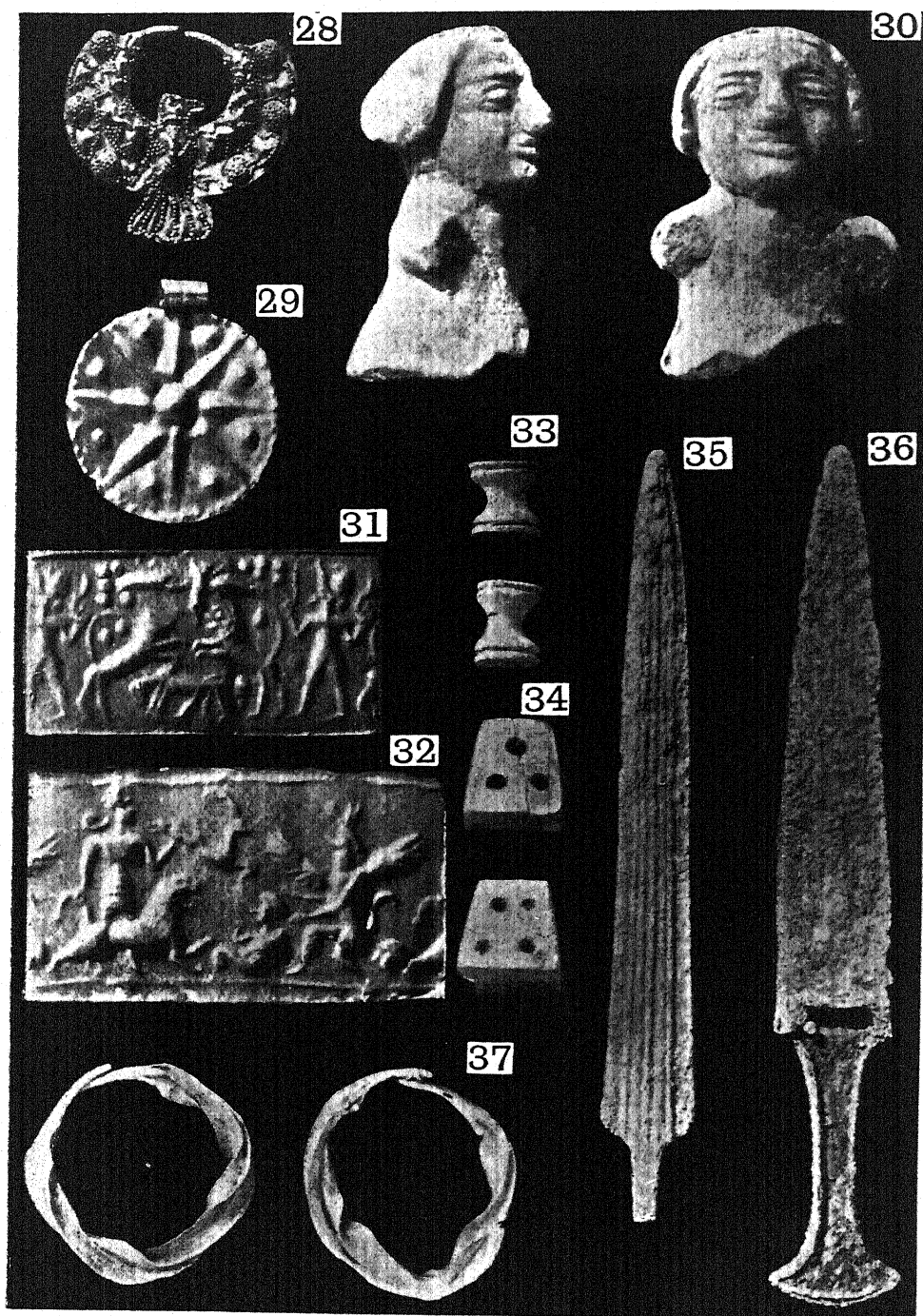
JEWELLERY, DYN. XII.

PLATE LXXI



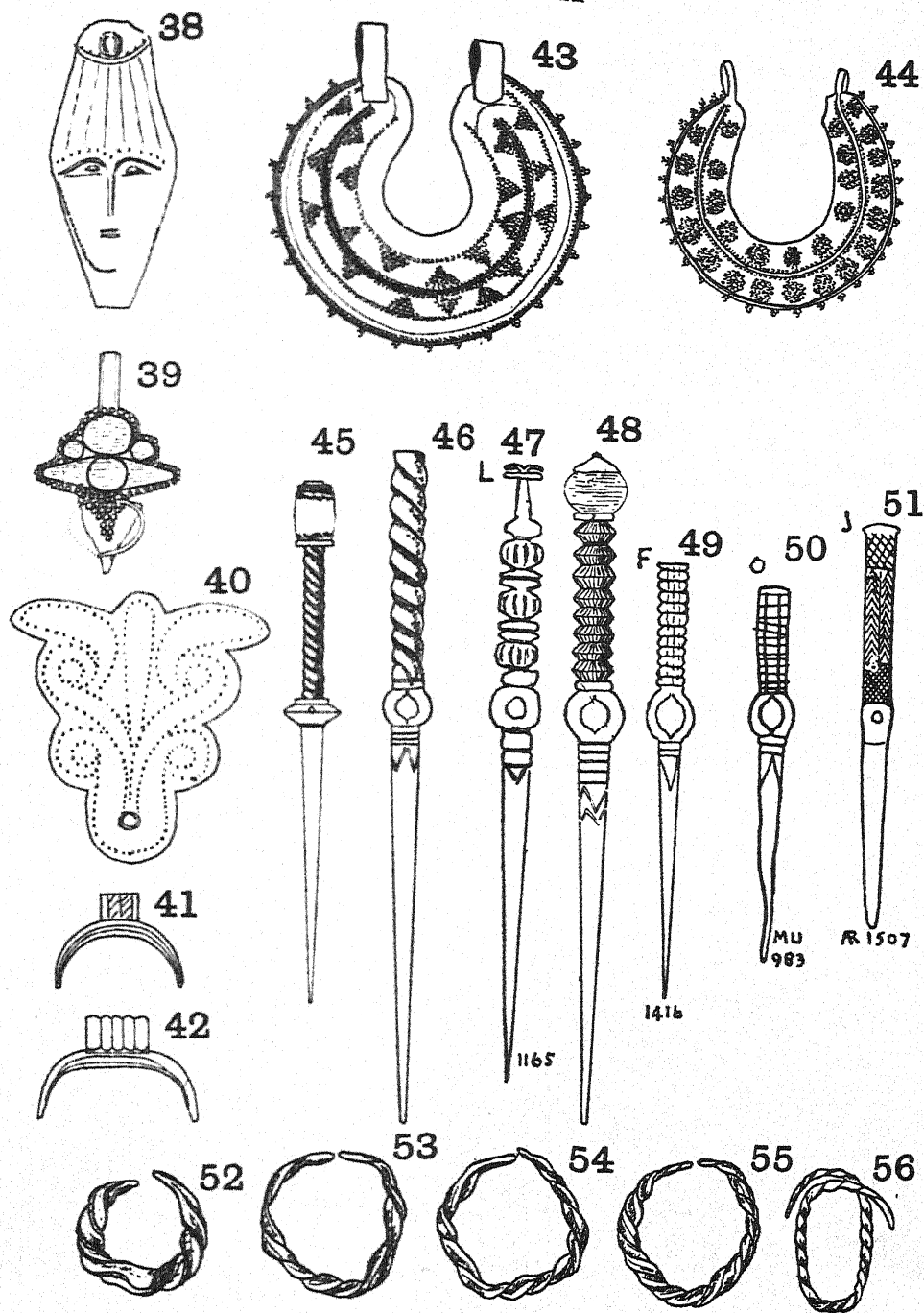
P.S. PETRIE SCARABS. H.S. HISTORICAL SCARABS.
N.S. NEWBERRY SCARABS. PELET. BETH PELET.

SCARABS, EGYPTIAN AND HYKSOS COMPARED.



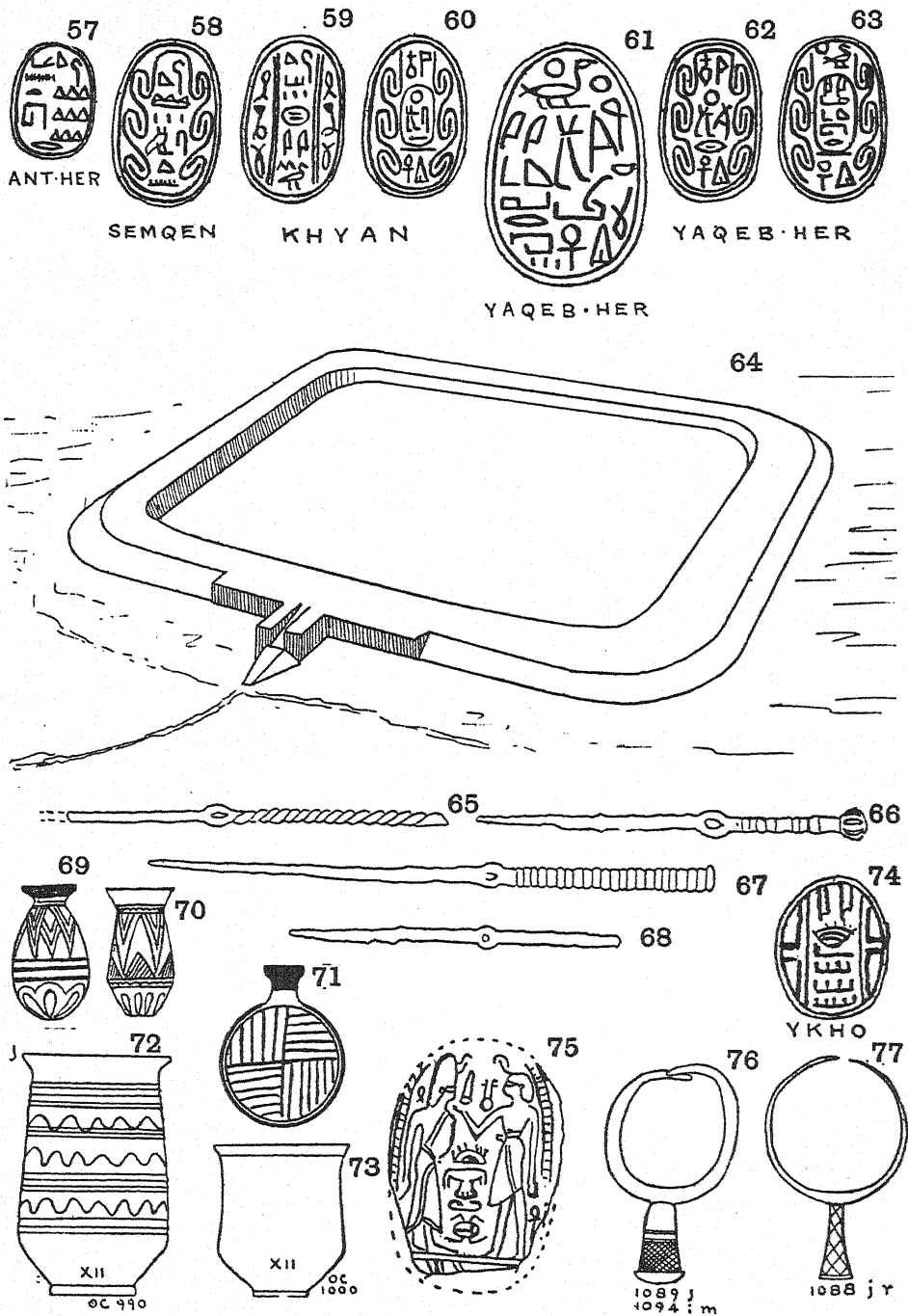
GOLDWORK, PORTRAIT, CYLINDERS, DAGGERS, DYN. XV.

PLATE LXXIII



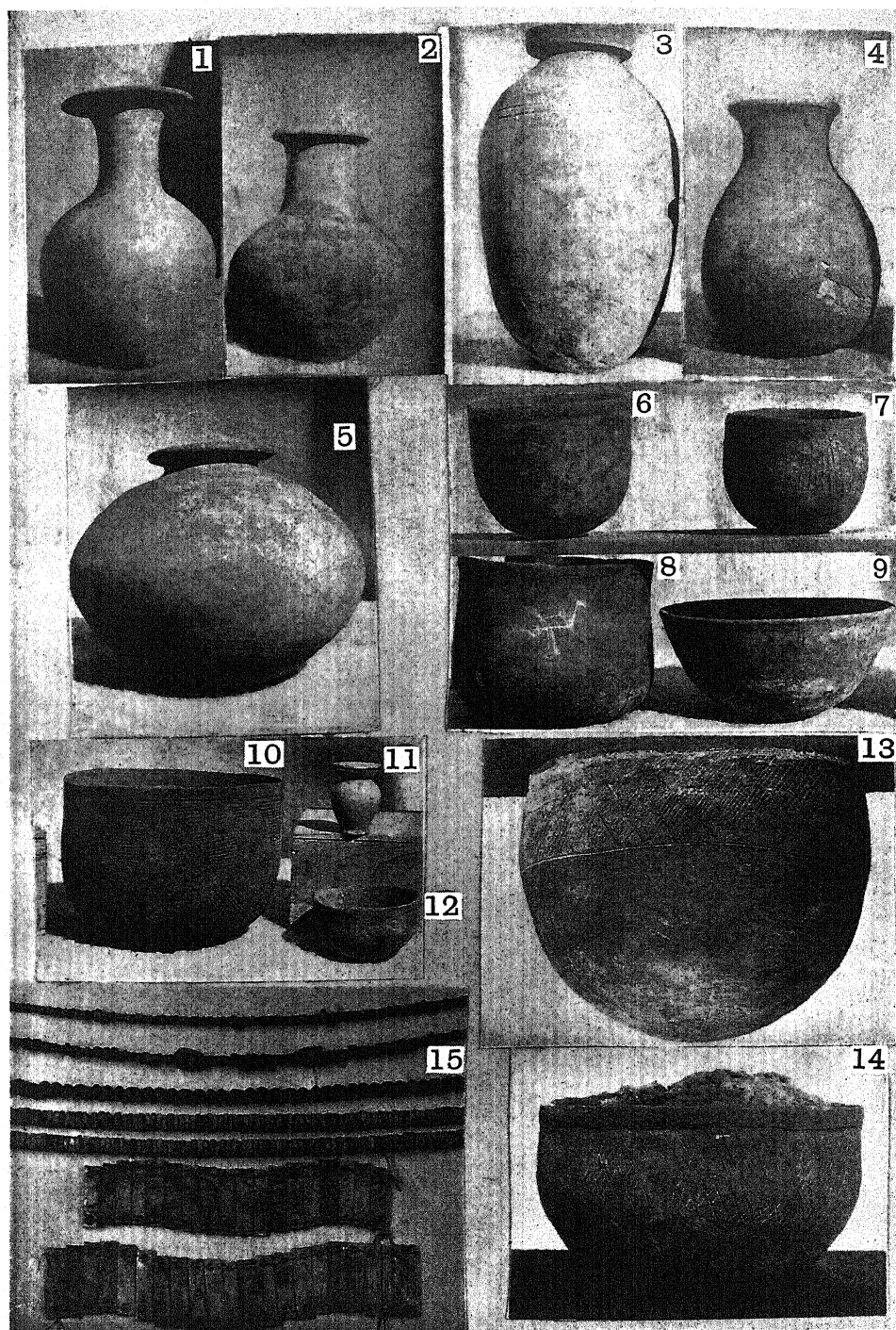
GOLD JEWELLERY OF HYKSOS AGE, DYNs. XV, XVI. (SCALE 1 : 1.)

PLATE LXXIV



SCARABS, FORT, TOGGLES, VASES, EARRINGS, DYN. XV.

PLATE LXXV



POTTERY OF PAN GRAVES, DYNS. XIII, XIV.

CHAPTER XVII

THE XVIIIITH DYNASTY AND LATER

109. *The Nubian Mixture*.—The later Hyksos were obviously decadent, and at last an invasion from the south threw them back northward and established a black queen as the divine ancestress of the XVIIIth dynasty. Thus again a southern people reanimated Egypt, like the Sudani IIIrd dynasty and the Galla XIIth dynasty.

The black queen Aohmes Nefertari had an aquiline nose, long and thin, and was of a type not in the least prognathous (L.D., III, i). Nefertari must have married a Libyan, as she was mother of Amenhetep I, who was of fair Libyan style. This black strain seems to have come through the Taosa I and II ancestry; but the whole tangle of the XVIIth dynasty is complex, and very difficult to bring into a definite scheme, owing to the tombs having all been robbed, and the contents mixed by Arabs more than a century ago. In any case the main sources of the XVIIIth dynasty were Nubian and Libyan, depicted black and yellow (L.D., III, i) but not the red of the Egyptian. A possibility of the black being symbolic has been suggested.

110. *New Ideals in Art*.—The artistic idea rapidly expanded from the timid figures of Teta-shera and Aohmes, son of Taosa II, into the luxurious style of Tahutmes or Amenhetep III. The changes were not due to invasion, but to the captives brought back from the annual raids of Syria by Tahutmes III. The Egyptian was enraptured by the grace and vivacity of the Amorite, who set the fashion in the higher classes, and changed Egyptian standards and ways (pls. LXXVI, LXXVII). The type survives in the fertile plain of the Syrian Eleutheros, a district notable for the gay, bright air of the people, and towards Antioch further north, where vivacity of manner and brilliant colour in dress abound. This sprightliness is the remains of the Amorite spirit, free of the harsh Arab fanaticism of the desert.

111. *Syrian and Cretan Influences*. Pl. LXXVII, 2.—A disc of wood,

from the tomb of Sarobina at Saqqara, with figures of animals curved round into each quarter with trees, of Cretan style. The quarters contain a lioness, a cow with palms, a bird gryphon with palms (*Pal. Minos*, iii, 153), and a *dorcas* gazelle with a bushy tree bearing two large flowers. The torrent bands which divide the panels are a well-known Cretan border. The work is exquisitely skilful and deserves much enlargement.

112. *Naturalism*. Pl. LXXVIII.—No. 1, figures in boat, fishing, an example of free line drawing beyond the conventions. No. 2, groups of purely natural action, two girls quarrelling over gleanings; girl having thorn extracted from the foot; man shredding flax heads.

No. 3, natural modelling of whole figure in limestone, probably of Queen Nefertiti. No. 4, a fragment of face of Nefertiti in hard marbled limestone, Tell el Amarna.

Pl. LXXIX. Casts of faces of various types, from life, slightly tooled, used for artists' studies at Amarna, and showing the diversity of peoples brought in by foreign connections.

113. *Influence of Mitanni*.—Akhenaten, influenced from Syria, made a brave attempt to establish a reasoned worship of the radiant energy of the sun, the most powerful force for life and action. He was an ardent devotee of the new nature worship, "living in truth," and that obscured all other interests. His agents were strange to such a reform, and it resulted in absurd deviation from a normal art or design, and brought to decay the new naturalism in art.

The influence of the Mitanni people shows in the figures of Eastern gods—Vata, the wind, Astharthet (Ashteroth), Antha (Anaitis) and Ishkara upon scarabs (*B.D.S.*, xx). The Syrian influence also had its gloomy side in Sutekh, the war god Set, banished by the Ist, but reviving in the IIInd dynasty. The XIXth dynasty starts its warfare under Sety, the devotee of Set, and Rameses II compares himself to Sutekh in his slaughter of Syrians. The treaty of peace with the Hittites is attested by the Sutekh of the nine great cities of Syria.

Such is the outline of the greatest transition that the people of Egypt had undergone, conquered by ideas and not by force.

114. *Mykenaeen Art*.—Beside this direct mixture of races, there was a strong cultural mixture by the Mykenaeen products which were

imported. Curiously there was no suspicion of this until I saw a sherd of such ware lying on the ground at Gurob in 1889, and for this I used the term "Aegean," as Greek was an anachronism. This beginning was amplified next year by finding the burnt deposits of articles of personal property, which were buried in the room of a deceased person. These often contained Aegean pottery along with material dated from Amenhetep III to Sety II (*Ill.*, xvii-xx). The finding of the fair-haired mummies and of the coffin of a foreigner, Anen-tursha, gave evidence of a foreign settlement at the mouth of the Fayum (*K.G.H.*, xix). This name Tursha opens a wide enquiry. It has been most usually identified with the Turseni or Etruscans, but whether they were so far south or west in the XIIIth century is doubtful. A wild guess at the name of Tarsus seems too remote. The alliance in a Libyan invasion of the western Delta leads us to look to the region of Carthage, where the names of the allies are found. To the south-east of Carthage there was the site of Tur-za, which might be grouped with the other allies (*Stud. Hist.*, iii, 113). The prefix Anen is likely to be a generic term for foreigner, as Anu is so applied to various peoples.

The Libyans were pressing into Egypt under Rameses II and Merenptah and again under Rameses III. This movement is age-long, at least as early as the Amratian white-lined pottery, and down to the present time when the Arab squatters along the western edge of the Nile valley are a constant danger to safety.

Pl. LXXX. The Mykenaeian influence culminated, under the foreign taste of Akhenaten. In the rubbish heaps thrown out from the palace, we found 1,400 Mykenaeian pieces which did not fit together, indicating probably half that number of vases. They were of the globular type (nos. 1-3) and the piriform type (nos. 4, 5), which implies a trade equally with Cyprus and Rhodes. In this they differ from the types at Gurob, which are of forms from Greece, probably traded along the African coast, while Akhenaten's supply came down the Syrian coast. The Amarna town deposit, mixed with dated material limited within half a century, gave the final overwhelming evidence of the date of this early civilisation in the Aegean. That the vases had been brought by later workmen is quite impossible

(*J.E.A.*, x, 294), as they were mixed with 750 pieces of valuable vases of variegated glass, which certainly belonged to the wealthy classes. Also there were 80 finger rings of Akhenaten and of the beginning of the reign of his successor, and none later.

115. *Rameside Sutekh Worship*.—All of the lighter influences of Mediterranean origin were swept away as heretic rubbish, and, in the XIXth dynasty, Egypt adopted an entirely mechanical rendering of the older style with exaggerated finish, as at the temple of Sety at Abydos. There is no life, no originality left, but the mere finish of it makes it popular to those who do not seek for spirit in it. This style lost even its finish and became coarsely mechanical under Rameses II and his successors. The XXIst dynasty sank still lower.

116. *Power of Shishak*.—The XXIInd dynasty of Sheshenq, named after the national god of Susa, Shushinak, was an invasion from the east settled on the eastern edge of the Delta at Bubastis. It does not seem to have produced any fresh style or influence, so it was only of a conquering family, like Saladin or other eastern raiders.

117. *Revival under Ethiopia*.—Decay continued in a divided kingdom; Egypt seemed hopeless until a fresh Ethiopian invasion stimulated it, as in earlier instances. The best example of this revival is on glazed faience (LXXXI), which shows that there was suddenly a close copying of very early detail. The form of tie of dress, the banded kilt like Narmer, the delicate and correct form of the *onkh*, are all careful revivals of fine work. The thick neck and type of face of Auput is plainly Ethiopian, like Taharqa. That king let Auput rule all Tell el Yehudiyeh, where his statue base was found.

118. *Persia and Greece*.—The next stage was the rise to power of the Saite family about 730 B.C. Five related rulers carried the line down to the accession of Psamtek I. From his long reign there continued the tranquil century of the XXVIth dynasty; this civilisation astonished the early Greek mind. The Greeks, however, were carefully kept at bay in Naukratis and Daphnae. There is no sign of a racial mixture in the population either under the Ethiopians or Assyrians or Libyans, who in turn ruled Egypt.

The Persian rule from 525 to 405 B.C. made no difference to the country; temples were built and sacred bulls were buried as before.

Half a century of Egyptian kings of XXIXth and XXXth dynasties, and a further brief Persian conquest, led on to the greatest change in rule and in race by the Greek infusion in the East.

Pl. LXXXII. The royal portraits of dyns. XXVI to XXX bear little resemblance to the older types of Egyptian kings. The flood of Libyan influence had brought in many different peoples.

No. 1, Psamtek I, prince of Sais (dyn. XXVI), had a very upright head, deficient at the back. No comparable lack of occiput has been traced anciently, but he shows the extreme of height and shortness of head, with nose pointed and turned upward. Neither of these forms appears in the Western prehistoric (XXXVII, 1), nor in the XIth dyn. Libyans, nor in the group of the four races of mankind. The name Pe-zam-tek, the lion's son, like Shabatek, the wild cat's son, points to his Libyan origin, but no such type is known from Libya. It may be Syrian.

No. 2, Hakar of Mendes, Akoris (dyn. XXIX), had a long low head with straight nose. He is well figured in a sphinx in Paris, formerly in Rome. The basis of this has been falsely re-inscribed, but on the right edge in front there remain, finely engraved in shallow cutting, the signs *aa ab mer tau*, the Horus name of Hakar. This has a normal head, and broad business-like face, unlike any earlier kings.

No. 3, Nekht-nebef of the Sebennyte princes (dyn. XXX) has again a different type, moderately aquiline. He was nearer to the early kings in face, but yet unmistakably late.

These diversities of families in the Delta are what might be expected after the many fluctuations of people in this most exposed part of Egypt, a centre of three ways, north, west and south.

The Persian invasion had brought Indian troops to Egypt. Pottery figures were found at Memphis, with dozens of examples of pottery heads portraying other races from Persia to Spain (*Memphis*, I, II, III). These racial portraits seem to be accounted for by a Buddhist custom of modelling heads of all the peoples to whom Buddhism was preached, to be present at a great festival and then thrown away (Huc, *Travels in Tartary*, vol. ii, 42-44).

The greatest change in population since the Hyksos was the settlement of the Greeks into Egypt. Begun in small trading posts at 650

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B.C., it spread by Greek mercenaries being largely used in the VIth and Vth centuries to defend the Delta, and the final swamping was the conquest by Alexander in 332 B.C. He altered the course of Egyptian history by founding Alexandria as a commercial centre. In the new civic life there, it was the Macedonians who took the highest rank, next to that the Greeks and then traders of all kinds, Jews and Sumerians especially.

The Macedonian Ptolemies (Polemaioi) put an end to all Egyptian types in the rulers of Egypt. Since these, every country round the Mediterranean has supplied rulers in the different ages down to our own time. The present ruling family is from Albania, and the present queen a Turco-Persian. The Ptolemies employed Greeks all over the country, although the organization continued fully on the native system. The main settlement was formed by drying most of the Fayum lake, to provide lands for Greek veterans. The new stretch of province was essentially in Greek hands.

From A.D. 100, mummification was adopted by the Greeks, and painted cloth was used to cover the faces of the mummies at Hawara. By A.D. 150 there were portraits painted on thin wooden panels, framed and hung up in the house, until required to bandage on to the mummy. This continued till about A.D. 250 and has provided dozens of lifelike portraits of the Egyptian Greeks (*Hawara Portraits*).

Pl. LXXXIII. This plate is an outline sketch-map to show the position of each place in Egypt that is named in the volume.

Pl. LXXXV. The diagram of periods will show the general relations of civilisations in different regions. The eastern dating is under debate within two or three centuries. Fairly fixed connections with Egypt are given by the rise of two Semitic dynasties in Iraq, entered here as not later than 2950 and 2230 B.C. They seem to have been due to the extrusion of the Amar (Amorites) from North Syria by the Caucasus peoples thrusting their way into Egypt, where they arrived 3100 and 2370 B.C.

119. *Discovery and Interpretation*.—The present volume sums up the essential features of the prehistoric Egypt discovered in 1895-96. Until then, the history of Egypt only began with the Great Pyramid, and Mena was considered a mythological figure, like Minos and Manu.

Since that time of ignorance, some twenty volumes have recorded the discoveries of the rise of civilisation, reaching back age before age. We now need to consult over five hundred crowded book-plates to gain the new knowledge.

From the mass of objects which distinguished the various periods, I have selected the more essential, and set out the changes of population, and of fashion, which gradually formed the basis of the abilities and powers of the prehistoric peoples.

The dark periods of the historic times, the so-called Intermediate, have likewise been studied with new material from widely different sources, and we can now realise what many-sided influences successively shaped the destinies of Egypt.

We have here, unrolled, the most complete and continuous history of a great civilisation, from the flint age to the ages of highly organized culture. We see how each successive stage was due to intermixture with an alien civilisation, and we may infer that a people however mingled cannot progress when once unified—continual mixture with another civilisation being needful for the growth and development of a country.

The uniform result is that Egypt never originated any new civilisation, but was a fertile ground for implanting the products of other lands. Each new movement entered Egypt at its best, and deteriorated gradually under the easy conditions of life in Egypt.

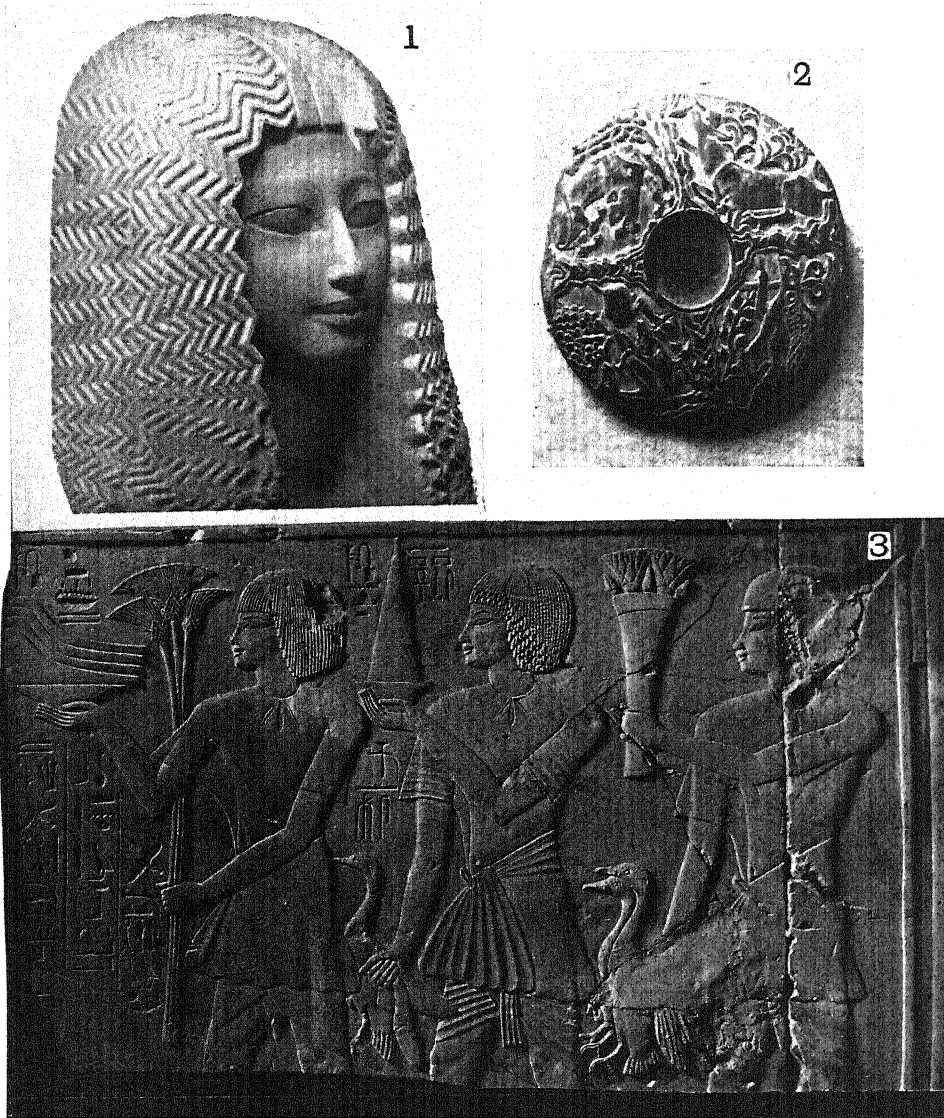
These researches, which have crystallized the scattered facts of the past, may tend to promote a more hopeful view of our own time, and lead us to avoid the exclusive nationalism which ignores history. The remote ages of the past bear on the immediate present and serve to illumine the future.



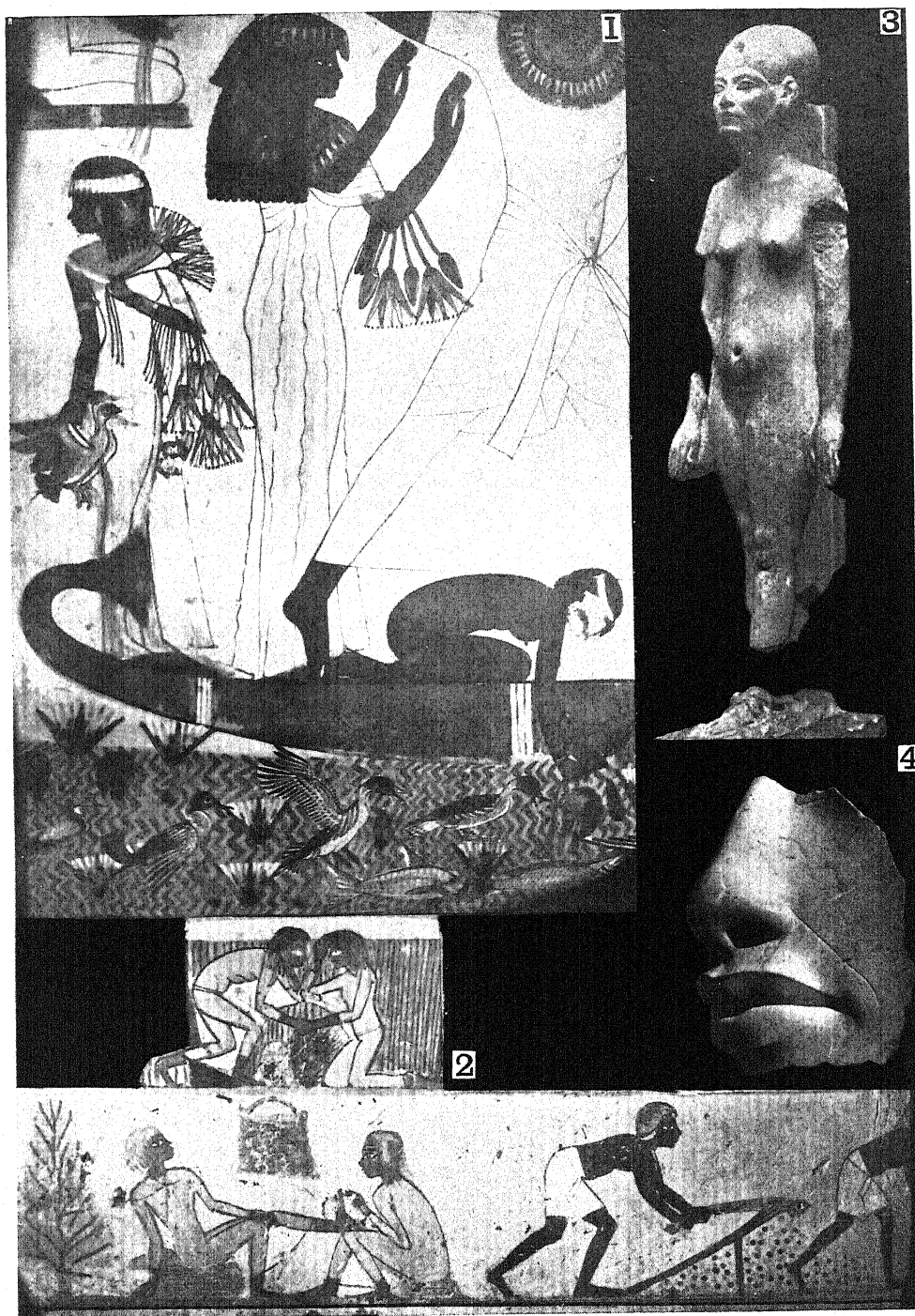


SCULPTURE OF SYRO-EGYPTIAN STYLE, DYN. XVIII.

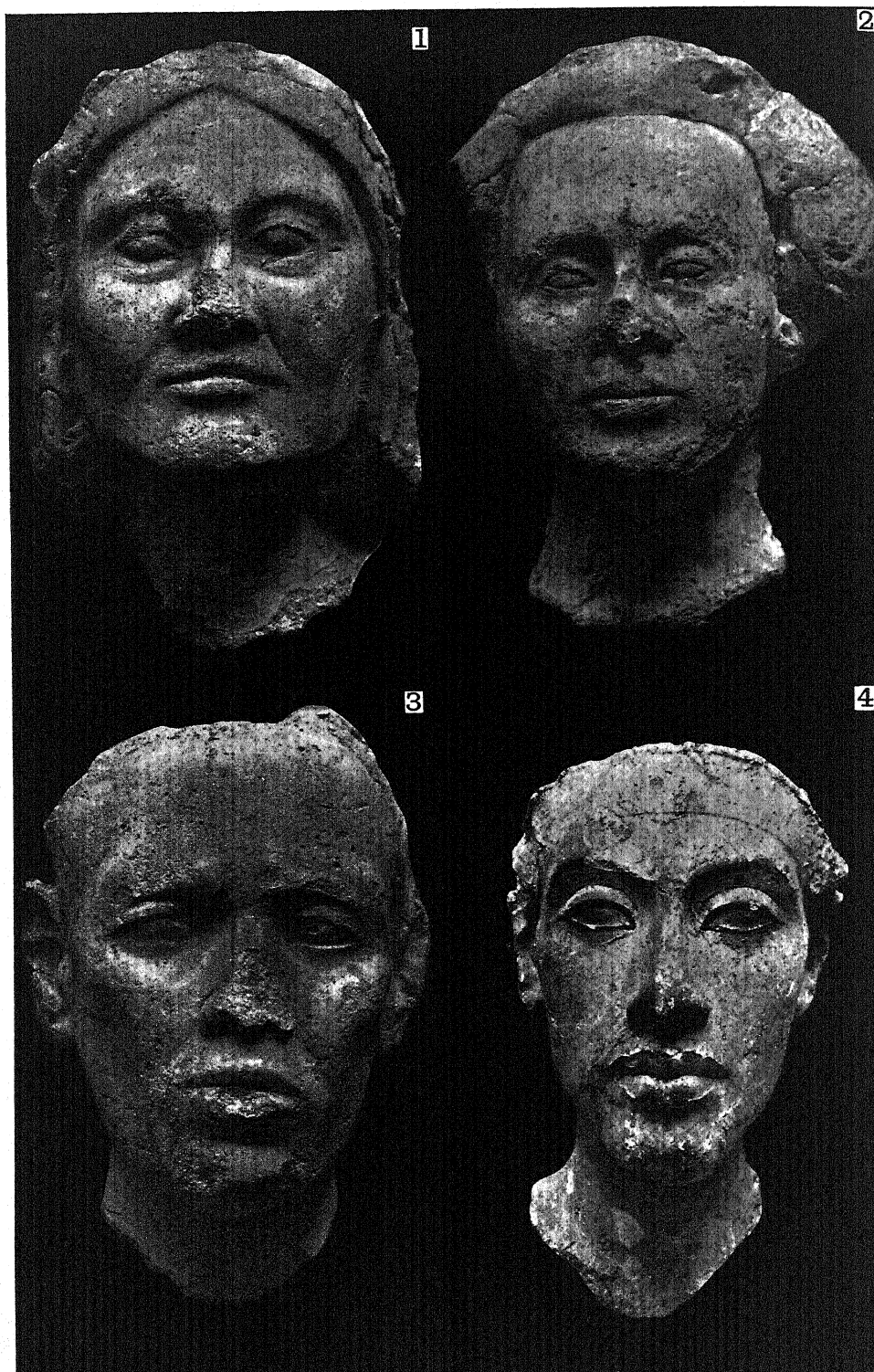
PLATE LXXVII



SYRIAN AND CRETAN INFLUENCES, DYN. XVIII.

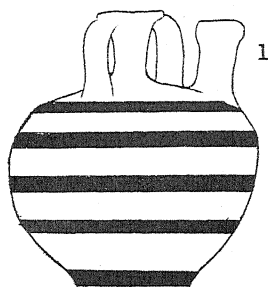


NATURAL WORK IN EGYPT, DYN. XVIII.

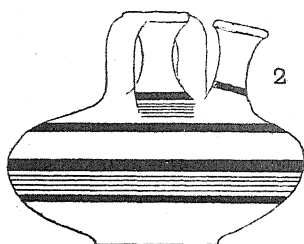


CASTS OF HEADS, DYN. XVIII.

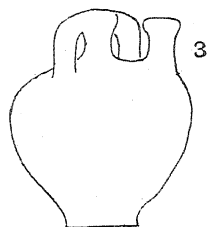
PLATE LXXX



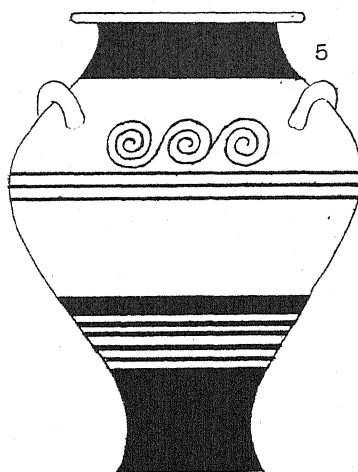
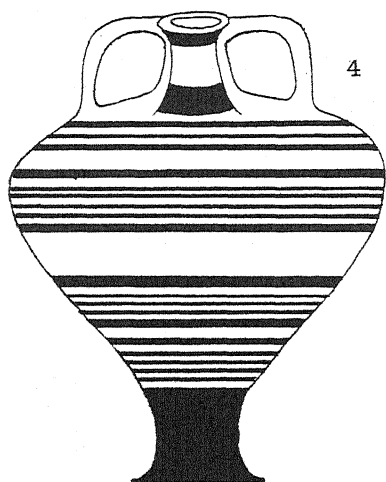
AMENHETEP III



LATE XVIII



SETI II



MYKENAEAN POTTERY, DYN. XVIII.



ETHIOPIAN REVIVAL, DYN. XXV.



PORTRAITS OF KINGS, DYN. XXVI, XXIX, XXX.

APPENDIX I

LIST OF HYKSOS KINGS

Hyksos Suzerains over XIIIth-XIVth Dynasties.—The Hyksos scarabs can be placed in classes, by the patterns surrounding the names.

The distinctions are : (a) Title, "prince of the deserts," and similar style. (b) Cartouche with border of spirals or hieroglyphs. (c) Vertical lines with signs. (d) Title, "Sea" king, MU. (e) Vertical lines, degraded signs. (f) No border. Some of these may be local varieties.

In the following list of the Shepherd Kings, each king is given his Ra name and his personal name and the later Greek form, where known.

(a) Six kings, XV dyn.

				B.C.
—	Anther	..	..	Salatis
—	Semqen	..	..	2371-2352
MerUserRa	..	YakebHer	..	Beon
OaUserRa	..	Apepa I	..	2352-2308
SeUserNeRa	..	Khyan	..	Apakhnas
NebSebekRa	..	Shesha	..	2308-2272
			..	Apophis
			..	2272-2211
			..	Ionias, Staan
			..	2211-2161
			..	Assis
			..	2161-2111

(b) Twelve kings, XVI dyn.

2111—about 1871

NeferKaRa	—
NubKaRa	.. UserSef Neb
KheperRa	—
ZaRa	—
OaNebRa	—
—	Uazed
—	Sekt
SmaKaRa	—
NeferuiUahRa	—
MaotNebRa	—
MaotAbRa	—
—	YdaSet

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KhoUserRa SkoNeRa	(c) Two kings, XVI dyn. Mentuhetep.	about 1871-1841
— — — — —	(d) Seven kings of the Sea, XVI dyn. OaQerMu YkebOrMu OaMu YkhoMu YoMu NeferGergMu —	about 1841-1757
ErDuRaMu		
OaHetepRa — MaoRa KhoRa NebUahRa NubyRa NubUserRa	(e) Seven kings, XVI dyn. — Qar — — — — —	about 1757-1673
OaSchRa — OaQenenRa NebKhepeshRa	(f) Four kings, perhaps in XVII dyn. — Ysanen .. Apepa II .. Apepa III (thirty-eight kings in all).	about 1673-1593

APPENDIX II

EGYPTIAN SKULL DIMENSIONS

It has been hitherto usual only to consider the mean value of each dimension in a whole people, as if they were entirely unified and homogeneous. But historically such treatment is confusion, as it is well known that races may long continue mixed together without any fusion by marriage, as Copts and Arabs, Jews and Greeks, Armenians and Turks.

When two types are thus mixed without union, the identical persons should be the same in the minority group for each dimension. But where there is a fusion of races, there will be more or less of a Mendelian outcrop of the minor type among the majority; the individuals will not be identical in each of the dimensions, as those of one part are more transmissible than of another. Hence any separate minor group is good evidence, even if only found in one particular dimension.

There is need, then, for searching dimensions of each organ for different groups of size. Two peoples may be alike in some measures but not in all. When we map out the measurements of one dimension, it may be seen that one part of the series is isolated by a gap, or by a discontinuity of curve, as in *Tarkhan II*, liv-lix.

The presence of an underdog race along with the finest work is strikingly shown by the frequent rough Magdalenian flakes in the same graves with the finest rippled knives, and later the frequency of small cuboid seals with animal figures (*B.D.S.*, v, 293-320) like the rock incisions in the Libyan desert, but contemporary with the fine carving of the Old Kingdom.

The main questions before us are (1) the permanence of types, (2) the descent of any separate type. A minority may consist of (a) a permanent ruling class, or (b) a remnant of an earlier majority group, or (c) a new ruling class.

For searching the distribution in any one organ, the female series need not be discarded. Where there are but few examples in all, the

median of the male *minus* the median of the female, in each dimension, gives a correction to be added to the female measurements to unify them with the male measurements of distribution.

The notation used here is L, maximum length; W, maximum width; H, maximum height from the foramen; A, the bi-auricular width; Z, the bi-zygomatic width. On the facial triangle, BN is basion-nasion, BA basion-alveolar, NA nasion-alveolar; NH nasal height, NW nasal width. The average difference of field-work measures from laboratory results is .5 mm. on B, .9 mm. on W, and 1.1 mm. on H. No appreciable difference in conclusions therefore would be made by trusting to field-work. The sexing of the skulls in field-work only differed in one out of 22 tested in laboratory. All dimensions are taken in millimetres.

The diagrams of the most important period, the Badarian, are given in full (Pl. V) to illustrate how, in each dimension, a similar gap in the series occurs, here shown shaded over. It is evident that the minor group is of smaller dimensions in all the first column, while it is of larger dimensions in the second column, except for zygomatic.

As we now need a new type of historic diagram, it has been necessary to frame one here (pl. LXXXIV), to deal with all the periods in one view.

In this the separation of strains has been traced as late as it could be detected and is shown, for each dimension, by two crosses opposite each locality named—the upper one being the minor group, and the lower one the major group. These two crosses are joined by a line. That most of the lines slope in the same direction means that the minor or fewer group is generally an inferior people, less in its measurements than the major group.

That these differences of major and minor are not fanciful or accidental is shown by the absence of such division after the XVIth dynasty. This accords with the known history, which does not record any large substitution of intrusive populations after that time, until the influx of Arab invaders. The Greek and Roman admixtures were limited generally to special towns without affecting the country life.

The following explanations may serve to show the use of the diagram. Every result in it was extracted in the same manner as in the Badarian diagram previously given (pl. V).

In pl. LXXXIV each line is numbered at the right side.

Line 1. In the Badarian age the minor group had a skull smaller in every direction, except that the triangle of basion, nasion and alveolar was larger, showing a heavy snouty face with long upper lip; this prognathous type belongs to an inferior race. As such a weaker people could not impose themselves on the higher Badarians (S.D. 21-29), they must be an earlier people, perhaps the steatopygous primal race (pl. IV, 40), or else the heavy type of the well-known ivory figure (IV, 46). The majority of Badarians were probably of the high type of the pottery figure (IV, 47). The clearness of the gap in the diagram (pl. V) proves that a different race is present.

Line 2. The next stage is in the earliest Naqada people, the Amratian (S.D. 30-40). In length and height of skull they improved on the Badarian, in height the best Badarian level became the lower Naqada level. In width the skull became rather narrower, both in maximum and zygomatic. For the face the horizontal basi-alveolar line was unaltered; but the majority of the Badari became the minority of the Naqada, and the height of the face was increased from both the basion and the alveolar point.

Line 3. The Fouquet measures of Amrah skulls have been questioned as being larger than any others in length. Referring to the detailed measures of the eleven skulls (De Morgan, *Age de la Pierre*, 244), nine of them agree with other series, lines 2, 4, but two are very discrepant and all the exceptionality is in these. Apart from them the Fouquet series is quite normal, in accord with line 2, and is so entered here.

Line 4. The Diospolis series of this age is intermediate between 1 and 2. Both minor and major types are inherited.

Line 5. The later prehistoric of Naqada has the width of the majority in line 2 remaining as that of a minority in line 5. Its majority facial width is narrower than before. In the basi-nasal triangle, while the majority is much like the previous averages, a larger type all round appears as a minority. The fresh people were the Gerzeans, and the change is to a head rather larger in all ways.

Line 6. The late pre-Diospolis is almost the same as (4), the early pre-, except that the upper jaw is deeper, so that the NA height is more, though the NH is alike.

Lines 7, 8, 9. There now comes the larger question of the advance northwards of the Ist dynasty people, who had lingered in the south. While those of (7) retained the older character, the northern (8 and 9) had much longer and wider skulls, while the height had rather decreased. The facial angle BNA was slightly smaller. The skulls show a greater change than any in earlier history, and the nasal height was increased.

Lines 10, 11, 12, 13. In the Old Kingdom period the main feature was a continuity in the majority, linked here with a dotted line. This accords with the obvious solidity and permanence of the civilisation over some six centuries. This is flecked, in the length of skull, by a minority of higher type at Reqaqneh and Deshasheh, and a different strain of lower type at Meydum and Qau. The sources of these minorities do not follow either place or period; but the lower type belongs to the prehistoric, and the high type to the Ist dynasty, though we do not see why these strains were thus superposed on the steady majority.

Lines 14, 15. These types were subject to the domination of the Caspian invaders, who were probably a small ruling class localised like the Turk, and show no effect on the skull dimensions. There is, however, a high minority class at Sedment (15), seen in the BA, NA dimensions, and an example of black and white glass there (*Sed.*, xii, 13) shows a northern influence. The multitude of button badges (*B.D.S.*, iv), of which some (iv, 222-227) are similar to those of the south Caspian, sufficiently show the influence of the ruling power even up to Qau.

Lines 16, 17. The XIIth dynasty was due to the emergence of a ruling family from Nubia, and did not involve a shift of population. The minority was of a higher type at Harageh, and lower at Diospolis in the south. After this point there are very few cases where a distinction can be seen within a group, and this reflects the lack of any considerable migration from the XIIIth-XVIth dynasties down to the Arab invasion.

In the general dimensions there is a fair constancy, until a deterioration in lines 26, 27, 28 under the Greek domination; this was followed by an improvement in 29, 30, about Oxyrhynchos, which later gradually deteriorated to the late Roman, of lines 30-33.

APPENDIX II

In order to see this better, the relative capacity may also be plotted. This is expressed by adding together the three dimensions, L, W, and H. The result is practically the same, for comparative purposes, as if they were multiplied together and the cube root extracted.

Referring to the comparative capacity, it is plain that the minor group follows the changes in the major group. In only two sites do they change place. At Diospolis, XI—XV dyn., a new minor group enters with heads larger in L and W, while the major group agrees better with the minor groups earlier and later. The inversion in Reqaqneh (III-V) may be due to only 10 skulls being known. In all the other sites the minor group is inferior in quality, and this points to a permanent underdog people who were influenced by the major group but not fused together.

We have now seen how much of the ethnic changes can be recovered from the skull measurements. The small difference between the Badarian majority and the Roman shows the unifying effect of climate after many intrusions and under many different states of civilisation. This accords with Boas' view of the rapid changes of form when placed in a new country (*Zeits. Ethnol.*, 1913, 1), where the Jews of cephalic index 83 rapidly change to 80, while the Sicilians of index 80 change to 82. None of the obvious disturbances of type by early Naqada 2, Ist dynasty 8, Old Kingdom 13, were of permanent effect, but all tend to lapse to the Badarian majority, except in 22, 26, 28, where a smaller type appears in the north. The known unifying effect of climate and country prevents our attributing this permanence to the absence of immigration. The effect of migration is seen, where it is known to have occurred, but only to be quickly subdued by climate.

In considering the meaning of variations, it must be remembered that the skull is grown to fit the brain; for instance, a deep frontal sulcus is met by a sharp high ridge in the skull, for which there does not appear any reason except the fit to the brain. It is not of much consequence how the parts of the brain are packed together; they may be greatly distorted by pressure during growth without any defect in the person. Hence the total volume is more significant than a variation in the packing or a change of indices of measurement. Again, it must be remembered that temperature largely influences the volume of

brain; the Eskimo have the largest and the Indians the smallest brains of civilised peoples. The brain is merely the habitation of the mind, and the damage or loss of a portion makes the mind use some other part; it is as if a man whose ceiling has fallen in were to sleep in another room. As a habitation framed on ancestral lines, the skull is a good indicator, but not an originator.

APPENDIX III

TABLE OF PERIODS

IN order to connect the various foreign histories which influenced Egypt, the parallel course of events is laid out in a continuous table, from 7500 B.C. up to the close of the Ptolemaic age.

Pl. LXXXV. The first column shows the vague position from the close of the series of flint working onward (see sect. 28).

The second column is the series of Egyptian history in dynasties, and earlier in Sequence Dates (see sects. 12, 13).

The third column notes the links to Syria and the West.

The fourth column notes the connections with the North.

The fifth column gives the contemporary movements in the East.

The studies published on climatic changes are difficult to generalize, as the terminology is vague. Each writer regards only a region, and a dry optimum in one land is a desiccation in another which may produce violent migrations. Even a diagram may not specify the extent and meaning of a change. For long period series, see *Quarterly Journal of R. Meteorological Soc.*, lx, 468 (Dr. Simpson). For a brief historic outline, see *Smithsonian Report*, 1929, p. 432 (J. C. Curry).

Various cycles of changes have been noted: An 11-year solar cycle; 36-year cycle of weather; 130-year social cycle of austerity and waste; a 500-to 650-year cycle of climate; an 1100-year cycle of civilisations (already noted by Etruscans); a cycle of dominant race, Sumerian, Semite, Aryan; cycles of glacial periods. Each of these is superposed on others, and there are also casual changes of land rising or falling, shifting of the rain belt in latitude, volcanic action, and solar radiation. The few thousand years of observations are quite insufficient to disentangle the causes and relations of such changes as a whole.

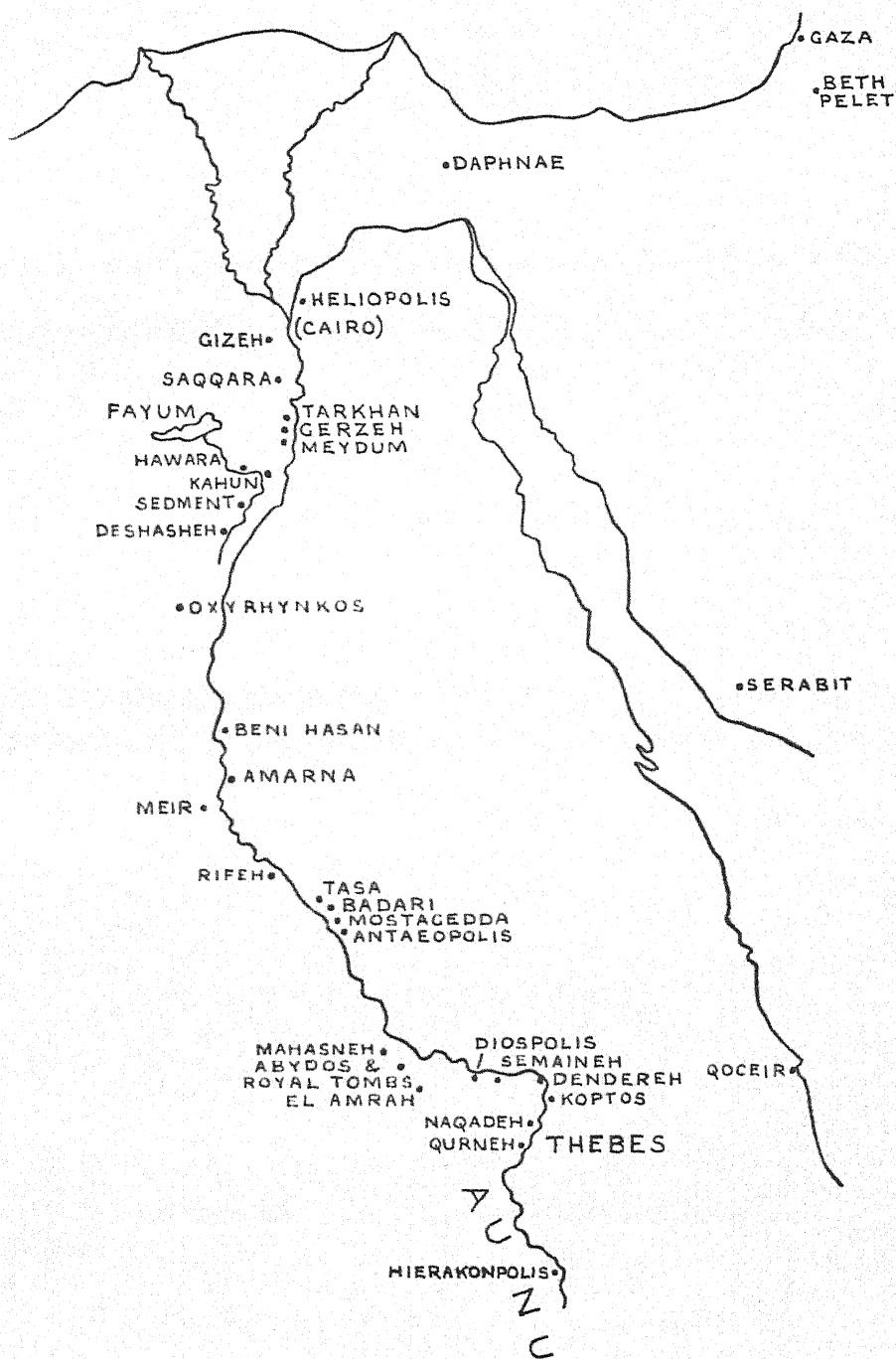
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BB BISSING BRUCKMANN HIC 1906	HYKSOS AND ISRAELITE CITIES PETRIE 1906	QB QAU AND BADARI I BRUNTON 1927
BC BADARIAN CIVILIZATION BRUNTON 1928	HR HIERAKONOPOLIS QUIBELL 1900	QH QUIBELL TOMB OF HESY 1913
BDS BUTTONS & DESIGN SCARABS PETRIE 1925	HS HISTORICAL SCARABS PETRIE 1889	RAA RANDALL MACIVER EL AMRAH & ABYDOS 1902
BH BENI HASAN 1893 - 1900	ILL ILLAHUN PETRIE 1891	RT ROYAL TOMBS I, II, PETRIE 1900, 1901
BLM BLACKMAN MEIR 1924	INST ARCH., LONDON, REGENTS PARK.	RV REALLEXIKON DER VORGESCHICHTE 1924-32
BM BRITISH MUSEUM	JAI JOURNAL ANTHROP. INSTITUTE	SA SCHÄFER ANNALEN 1902
BRI, I, BETHPELET PETRIE AND MACDONALD 1930 1932	JEA JOURNAL OF EGYPTIAN ARCHAEOLOGY	SC SCARABS & CYLINDERS PETRIE 1917
CAE CAPART L'ART EGYPTIEN 1922	KGH KAHUN GUROB AND HAWARA PETRIE 1890	SED SEDIMENT PETRIE 1924
CDA CAPART DEBUTS DE L'ART KOPTOS 1904	KOPTOS PETRIE 1896	SIN SINAI PETRIE 1906
DEC DECORATIVE PATTERNS PETRIE 1930	LD LEPSIUS DENKMÄLER	SK SCHÄFER KUNST DES ALTEN ORIENTS 1925
DN DENDEREH PETRIE 1900	LGM LABYRINTH GERZEH AND MAZCHUNEH 1912	SP SARRE ART PERSE ANTIQUE
DP DIOSPOLIS PARVA PETRIE 1901	MICEON COLLECTION	TAR, TK II TARKHAN II PETRIE 1914
EPM EVANS PALACE OF MINOS 1921 ETC.	NB NAQADA AND BALLAS PETRIE 1896	TC TOMBS OF THE COURTIER'S PETRIE 1925
ESA EURASIA SEPTENTRIONALIS ODU ANTIQUA 1932	ODU OBJECTS OF DAILY USE PETRIE 1927	UNIV. COLL. UNIVERSITY COLLEGE
FA FORMATION OF THE ALPHABET PETRIE 1912	PA ANTAEOPOLIS PETRIE 1930	WPT WACE PREHISTORIC THESSALY 1912

PLATE LXXXIII



MAP OF SITES.

BRITISH SCHOOL OF EGYPTIAN ARCHAEOLOGY

THE last few winters have been actively employed in excavation in the coasts of Palestine and Sinai, and the summers in researches consequent on these.

A fourth and a fifth season at Ancient Gaza have yielded good results. Three seasons on a border fortress at Anthedon exposed twelve layers of frontier town of as many centuries; the sequence of the finds illustrated the political conditions and the fluctuations of prosperity of each reign.

Shorter spells of work included surface examinations in Syria and Moab, and a brief digging at Petra.

In these labours, however, we have been hampered by a falling off of funds, due to the decrease of personal intercourse with England, and the enforced cessation of our college lectures, lantern lectures, and annual exhibitions.

Help is urgently required, therefore, that the present difficulties of our work in Palestine or in Egypt be not increased by a lack of resources.

Address: Lady Petrie,
University College,
Gower Street, London, W.C. 1.

H. PETRIE,
Jerusalem.

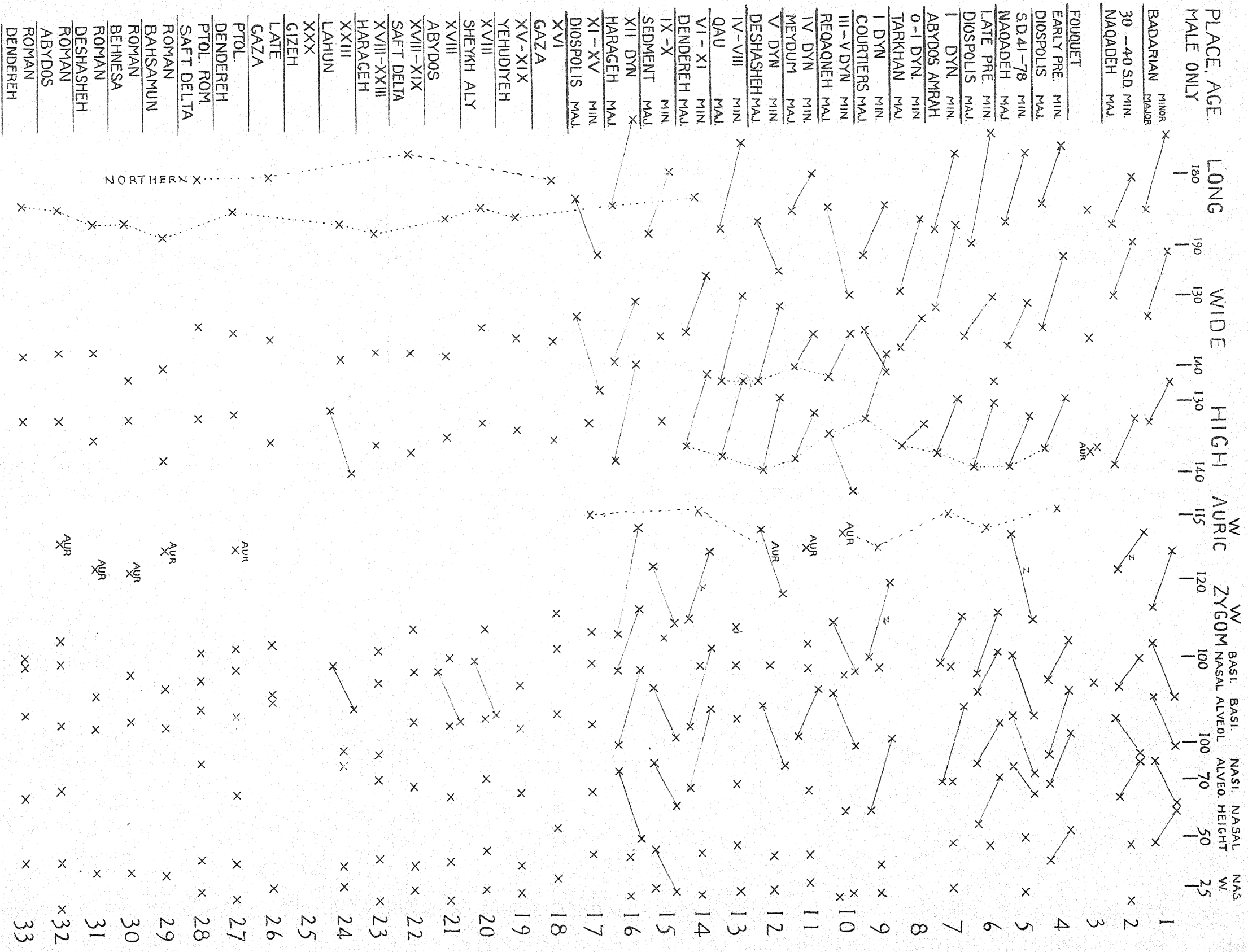
PLATE LXXXIV

PLACE, AGE.	LONG	WIDE	HIGH	AURIC ^W	ZYGOM ^W	BASI. NASAL ALVEOL.	NASI. NASAL HEIGHT	NAS ^W
XVIII-XXIII HARAGEH		x	x		x	x	x	x 23
XXIII LAHUN		x				x	x	x x 24
XXX GIZEH								25
LATE GAZA		x	x		x	xx		x 26
PTOL. DENDEREH		x	x	AUR ^x	x x	x	x	x x 27
PTOL. ROM. SAFT DELTA		x	x		x x x	x		x x 28
ROMAN BAHSAMUN		x	x	AUR ^x	x	x		x 29
ROMAN BEHNESE			x	AUR ^x	x	x		x 30
ROMAN DESHASHHEH		x	x	AUR ^x		x		x 31
ROMAN ABYDOS		x	x	AUR ^x	x x	x	x	x x 32
ROMAN DENDEREH		x	x		xx	x	x	x 33

NORTHERN Z

EGYPTIAN SKULL DIMENSIONS, BADARIAN TO ROMAN.

Facing page 184.



EGYPTIAN SKULL DIMENSIONS, BADARIAN TO ROMAN.

PLATE LXXV

B.C.	EGYPT	SYRIA	NORTHERN	EASTERN
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[illegible]

TABLE OF PERIODS, 7500 B.C. TO ROMAN.

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